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No. 1

The Treatment of Mental Illness

KARL A. MENNINGER, M.D., Topeka

Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

The function of mind as now conceived is the adjustment of the individual to life. This involves all the perceptual, emotional, intellectual and volitional maneuvers necessary to apprise him of the world in which he lives and enable him to behave himself in a comfortable and efficient and productive way in whatever sphere he inhabits. In early life this is not difficult; most of the environmental bumps are shielded or softened for the infant in arms, who need only cry in order to receive food, or wave his arms in order to be carried to another point. It is a far cry (but traversed in a few short years) from this era of simplicity to the stage where transportation involves railroad systems and automobile hazards, and where daily bread necessitates a life work and a daily grind. But this change from the simple to the complex adjustment has to be made by every individual.

The mind is the captain of the ship. Some sail through stormy seas with a steady keel and calm; others pitch and rock in the smoothest waters. Much depends upon the ship's builders; but much, too, on the times and seasons and fortuitous winds; and much, finally, on the captain. The nervous patient is a ship pitching in the storm; the "insane" patient is a ship at least temporarily foundered. Suicide, homicide, perpetual invalidism, pernicious forms of "insanity"—these are ships wrecked.

In treating the nervous patient, i. e., mentally ill patient, what we really do is to facilitate a difficult, a painful, a failing adaptation.* The symptoms of this pain or this failure are legion; they may be considered under diagnostic groupings as neurotic, melancholic, schizophrenic, epileptic, neurosyphilitic, etc. The frankly structural, infectious, and traumatic cases are not excluded, but the technique of their readjustment is much more familiar to the medical

public and hence will be slighted in this discussion in favor of the so-called "functional" illnesses. These are maladjustments where the factors of failure are less obvious. For example syphilis is more obvious than marital discontent; hence the neurosyphilitic generally gets better treatment than the psychoneurotic housewife.

The nervously ill patient is a square peg in a round hole. Adaptation may be most easily brought about by changing the hole in some cases; in others by whittling down the peg. Alterations may be effected in the environment, socially, physically, externally; or in the individual, selfishly, psychologically, internally.

These will be considered in three major categories: I. Simple external adjustments. II. More radical environmental changes, medicine, surgery, etc. III. Internal changes—psychotherapy.

I.—SITUATION ADJUSTMENTS.

So frequently does it occur that a superficially determinable situation exists which is the patient's Shibboleth that psychiatrists have adopted the term "Situation Psychoses" as a technical expression for certain severe maladaptations which develop under such circumstances ("conscious conflicts"). Sudden stresses often serve as the precipitants of these illnesses, such as some of the many types of mental and nervous pictures of the war called "Shell Shock." Persons thrown into jail sometimes develop what were formerly called "Prison Psychoses."

But these situations need not be so spectacular as war, or so gloomy as jail, or so sudden as either; they may occur in the most peaceful of homes and develop slowly over many years. It should never be forgotten that the "situation" is only the straw that breaks the camel's back, or rather the sack of wheat that bends the camel's back; it is sufficiently heavy as to make the difference between success and failure; if it be removed, the patient can carry on his life comfortably, whereas with it he could proceed only with groans and screams (i. e., with hypochondriacal complaints, anxiety, sleeplessness, phobias, inefficiency, tremors, depressions, etc.)

These cases are relatively simple to "treat,"

*In an address to physicians it should be unnecessary to make the point about which the laity still remain so ignorant, namely that the word "nervous" is merely an euphemism for "mental"—that a nervous illness is a mental illness, degree unspecified.

once the factor of difficulty is found. This, however, often requires the most painstaking study—historical, physical, neurological, social, psychological, laboratory and observational. The diagnosis may require weeks; treatment may sometimes be completed in an hour.

Miss E., No. 869, came in complaining of a backache. She had had it for three years. With it were the usual neurasthenic symptoms of fatigability and peeplessness. Thorough examinations, including x-ray, were negative. She had had various attempts at "suggestion" and manipulation treatments (osteopathy and chiropractic) which had failed.

Careful study of the history brings these facts together: The backache began "when I came home to take care of mother, aged 70, who is an invalid." The patient is 33 and has been engaged to be married for several years. She has not gotten married because she felt she ought to take care of her mother. The man to whom she is engaged was becoming restive and did not want to postpone the marriage any longer.

The symptom of backache, in other words, was a symbolic way of saying that her burden was greater than she could bear, and that like the old man of the sea her mother was on her back. Her self-respect combined with other factors to "censor" this from her consciousness. Treatment consisted in pointing out the obvious logic, advising her to face it frankly and make her decision consciously rather than unconsciously and to make some study of the psychological phenomena involved (recommending certain books). She has been well ever since.

Dorothy, No. 965, would give no real description of her symptoms until I persuaded her mother and father to leave the room. They had previously told me that they thought she was going crazy. She gave me a list of complaints half a page long, the chief of which were spells, dizziness, hot flashes, aversion to having people around, peeplessness.

She also told me directly and indirectly that her mother had died five years previously, that she had 10 living brothers and sisters, that she had a new stepmother and that she had an old and very determined, domineering, autocratic father. She was 28 years old and making her own living but she remained under the parental roof.

It seems like little more than common sense to advise her to get out of a home situation as painful as this must have been to her and to paddle her own canoe. I made this recommendation to her, to her father and to her physician, and all three accepted it heartily.

She left a few weeks later for a new post of duty two thousand miles away.

II.—MORE RADICAL ENVIRONMENTAL CHANGES (Physical and Medical Measures)

Very often no such easily removable thorns can be found in the lion's paw. The friction of the maladjustment may have gone so far that even if some thorns are removed the pain is unassuaged. Or again the troublesome factors may be too numerous, or they may be of a sort that cannot be removed for other reasons, perhaps because they are certain necessary features of the patient's life. For these cases an environmental alteration may be made but it must be more general than the specific removals previously mentioned; it must be of a categorical sort, a temporary radical removal of most of the ordinary living environment, with substitution of temporary tolerable solaces. This permits the psychic wounds to heal, as it were, and a new and greater resistance (mental strength) is built up.

Isolation in a hospital is such a method. In this situation the patient is surrounded by a negative environment. The nurses and physicians do not count since they excite no emotional response. All relatives, friends, acquaintances, telephone calls and letters are temporarily excluded. It is hard to make some relatives understand that they are their loved one's worst enemies (in his neurosis); they often get quite disgruntled because we advise against their visiting the sick one; but the patient rarely makes much fuss about it, because he knows, or he soon finds out, that he rests much more easily in their absence. In all hospitals for the nervously ill where visitors are permitted on Sunday, Monday is looked forward to as a bad day. The reactions from the visitors become manifest.

The nervous patient must be quarantined against society, for his own sake, just as a small-pox patient is quarantined for society's sake.

Isolation alone, however, is apt to be unbearable, and it can be advantageously combined with measures directed toward sedation and support. The combination of isolation, sedation, systematized rest, physiotherapy and force feeding was made justly famous by Weir Mitchell, of Philadelphia, a few decades ago. In variably modified forms, it is probably still the best method of treating certain types of mental illness, particularly those whose conflicts are not accessible or whose symptoms are not amenable to extra-institutional therapy.

As we apply it, the Weir-Mitchell or "rest cure" treatment consists of

1. Isolation.

2. Systematized rest.
3. Hydrotherapy, massage.
4. Dietary regulations.
5. Specialized hospital provision.
6. Specialized nursing.
7. Graded return to social intercourse.
8. Medicine and surgery as specially indicated.

Each of these will be briefly described and discussed.

1. *Isolation* has been discussed above.
2. *Rest*.

Rest is not a panacea. There are many patients with nervous diseases for whom rest in the ordinary sense is disadvantageous. Patients receiving psychoanalytic treatment, for example, do better if they are able to carry on their customary routine duties.

But in cases where there is indisputably a factor of exhaustion, rest is a therapeutic instrument of the greatest importance. The exhaustion may be primary or secondary, i. e., it may be a cause of the nervous imbalance ("breakdown"), or it may be a result of the terrific emotional storms and psychic conflicts; or it may be both. In the type of cases discussed on the preceding page the rest regimen is our most useful means.

It is important to specify, however, that a certain kind of rest is necessary. It is almost impossible for a patient to rest at home, and in my practice I refuse to countenance it at all. Neither can it be done as a rule by taking trips or visiting relatives. Many physicians cause themselves and their patients much unhappiness by advising trips. Mentally sick persons do not stand travel well; it fatigues rather than rests, for after all the patient cannot get away from himself, no matter how far he rides. He comes back with his symptoms aggravated, and with a conviction that his doctor was just trying to get rid of him.

Systematized rest for nervous and mental cases, as originally outlined by Weir Mitchell entails absolute rest in bed *in a hospital*, at first for twenty-four hours daily. This means that the patient does not get up for meals or to go to the toilet but is waited upon at all times (hence necessitating expert nursing); it means no visitors and no messages; it means complete relaxation, physical and mental.

It does not mean that the patient's time should be entirely unoccupied; as a matter of fact the routine procedures of physiotherapy, hydrotherapy, dietotherapy, etc., together with the hours allotted for sleep, fill up the day quite comfortably. Furthermore it should

be remembered that these patients do not suffer the pangs of ambition and energy disposal as would a well person similarly treated.

The following illustration helps the patient to "get the point." The heart beats approximately ten beats per minute slower when the body is recumbent than when it is erect. At each contraction the left ventricle forces out about 8-10 of a pound of blood. This means that in one minute the heart is saved 10 times 8-10 pounds, or 8 pounds of work, simply by the expedient of lying down instead of standing up. In an hour this amounts to 480 pounds; and in a day, 11,520 pounds, or nearly six tons! If to lie down for twenty-four hours can save the body six tons of effort on the part of one muscle alone (to say nothing of the energy required to maintain the erect posture) the biological economy of the rest treatment must be obvious.

3. *Physiotherapy*. Massage was one of the measures included by Weir Mitchell in his original outline of treatment for "neurasthenia." Massage is of unquestioned benefit in many nervous and mental cases, and it is not at all surprising that the osteopaths, crude as their technique of massage is, are so warmly supported by certain nervous patients whom they have apparently benefitted. (Unfortunately for them the osteopaths are evidently renouncing massage in favor of the ridiculous hippodrome calisthenics of the chiropractors, "manipulation.") Expert masseurs and masseuses are extremely rare in the west; in a few localities where they have come in from the east and from Europe, they have been poorly supported by the medical profession. Of course in the eastern cities they are a recognized adjunct to medical treatment, and physicians prescribe so much of certain kinds of massage, for which the patients then repair to the masseur or masseuse recommended.

*Why massage benefits mentally sick persons (as well, of course, as many others, e. g., spastic, paralyzed, ataxic, post-fracture cases, etc.,) merits a longer answer than space permits. In part it depends upon the generally

*The Swedish movement cure" was introduced into Sweden, in 1813, by Peter Henrik Ling, and was revised, in 1860, by Mezger of Amsterdam, but the movements which they practiced and taught were not original. Their fundamental principles were the same as those described in Chinese writings three thousand years earlier; the same as those used by the Brahmins of India; by the Egyptian priests, by Hippocrates, Galen, Rufus of Ephesus, and other physicians of ancient Rome and Greece and by Hoffman and other noted physicians of the Middle Ages.

"To be an expert masseuse requires a thorough knowledge of anatomy, and constant practice. The limited number of lessons in massage generally included in the curriculum of a nurse's course does not fit her to undertake the treatment of severe cases."—Practical Nursing, Maxwell & Pope, pp. 856-860.)

improved circulation which it facilitates; in lesser part, perhaps, upon the passive physical manipulation of the skin and muscle; but certainly also to a large extent upon certain psychic processes largely in the unconscious except for the fact that it is pleasurable—"it feels good," related to what is known in technical psychoanalytic terminology as cutaneous erethism. Hence the personality of the masseur or masseuse is of importance, and in our own work we count ourselves most fortunate in having Miss Ingeborg Lindquist, who received her anatomical and physiotherapeutic training in the Imperial University, Stockholm, Sweden.

Hydrotherapy is of equal or even greater benefit in many mental cases. In general there are four types of treatment:

(a) Showers, donches, etc., consisting in a stream or streams of water of prescribed and regulated temperature thrown upon the patient for short periods of time, usually with the idea of provoking an immediate cutaneous reaction.

(b) Cold or warm sheet packs, in which the patient is wrapped in sheets wrung out of water of a prescribed temperature, and next wrapped snugly in woolen blankets and allowed to rest in a darkened room for half an hour up to as long as two hours.

(c) Prolonged neutral immersion baths, in which the patient is submerged on a hammock slung in an extra-length tub, into which water is fed from a thermostatic control at a standard and invariable temperature, flowing out of the tub at the foot. In this tub the patient remains from 30 minutes to 3 hours, there being no contraindication in most cases to long baths.

It is generally accepted by institutional psychiatrists that hydrotherapy is of more value than drug therapy in sedation, i. e., in quieting disturbed cases. There is no doubt from our experience but that it is of immense value in stimulating improved psychic functioning.

Our hydrotherapy is in charge of Mrs. Stella Davis Boyd, R.N., formerly of the Topeka State Hospital.*

Calisthenics, active and passive exercises, and graded outdoor exercise is prescribed in all cases with reference to individual requirements and capabilities. This and the occupational and social therapy discussed above are

in charge of Miss Elma Beal, R.N., a graduate of the Johns Hopkins Hospital Training School, with post-graduate study in mental nursing at the Phipps Psychiatric Clinic in Baltimore.

4. *Dietary Regulations.* Most nervous and mental cases are undernourished, and as the illness runs on they become more so. There is often a considerable anorexia and even sicchasia. Consequently it is important to make unusual efforts to maintain nutrition. Weir Mitchell advocated deliberate overfeeding. Our general plan is to prescribe the full regulation hospital diet, which in our institution is unusually liberal and in addition egg-nogs, grape juice, whole milk and crackers, apples and cheese, candy, or similar refreshment between meals, routinely.

In some cases special diets are of course imperative. Many of our cases are diabetics, with nervous and mental complications. These are kept on a diabetic dietary regimen under the direction of Dr. C. F. Menninger. Others are cases of hypopituitarism and other types of obesity, and these require an anti-fat diet. Still others are nephritic and peptic ulcer cases, and these of course require particular diets.

Dietetic administration at Christ's Hospital is in charge of Miss Carlotta Nellis, who has had graduate work in dietetics in Chicago.

5. *Specialized Hospital Provision.* The type of treatment here presented may be advantageously given in a general hospital, but certain special provisions must be made. This topic would entail too much elaboration for the space of this article, but the requirements and advantages of the psychiatric department in a general hospital as compared to the "Sanitarium" and State Hospital have recently been presented by the writer in *The Modern Hospital*. In general, the indispensable factors are quiet, safety, and good equipment.

6. *Specialized Nursing.* It will not do to put nervous patients, hospitalized to afford isolation and a temporary respite from the unbearable difficulties in their outside life, in charge of nurses inexperienced in the care of such cases. There is a specialty of psychiatric nursing just as there is a specialty of psychiatry. This explains the increasing demand for graduates of good state hospital training schools. The nursing must be not only sympathetic, but intelligent and skillful and cautious. The personality of the nurse is often the peg upon which the patient hangs his difficulties. This topic is also discussed in the author's *Modern Hospital* article.

7. *Graded Return to Social Intercourse.* Gradually the patient may be given simple but increasingly difficult tasks in readjust-

*Our experience with hydrotherapy has been excellent, but rarely so spectacular as in the following, clipped from the Oberlin (Ohio) Tribune by the J. A. M. A., Vol. 21, No. 20, Nov. 7, 1923, p. 24. "Mrs. Josephine Brister, who lives south of town in Pittsfield, was struck by an automobile a few nights ago. Dr. Gunn was summoned and took Mrs. Brister to the hospital. After a good bath she felt better and was able to go home. She now wants to sue the man who struck her in the middle of the pike."

ment. Occupational therapy as it is called, i. e., various manual activities supervised by an expert in craft work, has this aim. We have even greater faith in a gradual and carefully regulated increase in opportunity for social contacts; first with other patients, then with a few outsiders (preferably not relatives) and gradually the relatives and children. Regulating this return to society is a most difficult matter; patients want to go home and their relatives want them, the expense of remaining in the hospital adds to the urge, and it is very difficult sometimes to withstand the pressure brought to bear. Yielding in this matter is sometimes uneventful; recovery (i. e., reestablished adaptation, rehabilitation) goes on successfully; frequently it is disastrous and the patient has to return to the hospital for another stay.

MEDICINAL TREATMENT

Nervous and mental patients are often overdrugged. This does not mean, however, that they should never be given medicine. There are a certain few medicines which are of prime importance, either as symptomatic or curative agents, or both. But nothing requires some discrimination in personal and specific selection than does the administration of drugs. Hence it must suffice here to list the more important, with a few words concerning each.

Neo-salvarsan, sulphar-phenamine and similar arsenicals have their standard value in neurosyphilis. We usually combine them with mercury and iodides.

Iodides (especially of sodium) are also useful in cerebral arteriosclerosis in large doses, while in small doses they facilitate the utilization of thyroid extract.

Thyroid extract is useful chiefly in hypothyroidal states; we do not use it routinely in other conditions.

Veronal (Barbital) is the most useful drug to induce sleep. In ordinary doses it has no toxic effects; it has no hangover in most cases; it is not habit forming.

Luminal-sodium, which may be given hypodermically, is exceedingly valuable in combating agitation.

Sodium bromide is similar to luminal-sodium in action but is somewhat less active and cannot be given hypodermically.

Luminal (not the sodium salt) is chiefly useful in convulsive phenomena.

Pituitrin (pituitary extract, posterior lobe) is useful in posterior lobe defect syndromes, and also empirically in schizophrenic pictures.

Antuitrin (pituitary extract, anterior lobe) is useful in anterior defect syndromes. (Of

course anterior and posterior lobe extracts may be given together.)

Atropine is useful in vagotonic conditions.

Ovarian extracts are probably of some benefit in the psychoses directly associated with the menopause.

Morphine and hyoscin are useful as sedatives only in an emergency. They are powerful but variable and hazardous.

SURGERY

The surgical procedures which may be considered as directly concerned with treatment of nervous and mental conditions are relatively few in number. Of course the most important is cranial decompression in skull fractures and other conditions of increased intracranial pressure. Craniotomies and laminectomies for tumor removal come next.

Tonsilectomies and thyroidectomies as well as tooth extraction and other attempts to remove foci of infection are sometimes indicated but they have been greatly overemphasized in my opinion. In a general way anything which lessens the burden of the organism permits easier and more efficient distribution of psychic energy. This, however, does not justify wholesale surgical onslaughts. It is exceedingly inadvisable for the surgeon to do a uterine suspension, a perineorrhaphy, or similar operation with the idea that while the patient does not urgently need it, she will be benefitted nervously. I have many times seen patients who have been made exceedingly bitter toward well meaning surgeons because the operation did not cure their despondency, excitability, or whatever it was. As a matter of fact it often makes them worse. In several cases I have been called by surgeons to see patients who had become delirious after operations and in one instance that I recall the patient was under mental treatment for over a year following an appendectomy for "chronic appendicitis." An earnest and sensible plea is made by a surgeon, Dr. Wm. B. Haggard, as an editorial in *Surgery, Gynecology and Obstetrics* for December, 1922, entitled *The Unnecessary Operation*, which every surgeon should read.

Physicians and surgeons sometimes defend this treatment on the basis that it acts as a form of suggestion. This is true, but like all suggestions it is apt to be transitory in its effects and it is too severe a form of suggestion to be justified by transitory effects. It may seal the patient's fate forever by irrevocably fixing him in his neurosis. The following is an example.

Case History of Treatment by Surgical Suggestions that Failed: E. P. is a man of 42 who lives in western Kansas. He was referred to us with a pathetic letter from his

physician saying that he had been for five years under the care of a well known surgeon in Kansas City who had removed his appendix, his tonsils, and some teeth, who had done spinal punctures and other diagnostic procedures including much stomach pumping and the like, who had drained his frontal sinus and his pocket book. Incidentally the patient had also been in the hands of a capable internist whose ten-page report was sent along with the patient when he came to our clinic.

When we saw him, his complaint was precisely that with which he first saw a doctor five years previously, "weakness, headaches, nausea and vomiting." When one attempted to get details of these symptoms there was a great deal of vague describing with nothing described. He used all sorts of phrases such as "loss of power," "sense of pressure," "pretty good," "all in." He told of his troubles with a sad and mournful voice and manner and at the same time with a facial expression which said plainer than words, "Damn you, don't you dare to make me well!"

Mental examination revealed very clearly that this man's only interest in life was his sickness. The surgical manipulation he had received so confirmed him in his invalidism that I regard him as a hopeless case. As I wrote his physician, "the combination of poverty, surgery and a weak nervous system is a pretty disastrous one, and after a surgeon has monkeyed with a case for five years and sent him home poverty stricken and neurotic and as full of complaints as ever, about the only thing left to do is to institutionalize him." Commitment to the State Hospital might cure him but his unconscious knows this and will probably forestal any such interruption of the pleasure he is deriving in his neurotic escape from reality.

Contrast that case with the following example:

Mrs. M, No. 817, began to be sleepless, fearful of being alone, ambitionless, exhausted and worried and terrified by trifles. She went to a celebrated surgeon who examined her and told her that she needed a dilatation and curettage, which he proceeded to do for her. She went home no better of her nervous symptoms and went from bad to worse.

She then consulted another surgeon (Dr. Sam Murdock) who was wise enough to refuse the abdominal operation which she now thought she should have for menorrhagia. He referred her to us and she was put on treatment such as outlined above. It required fourteen weeks in the hospital to put this patient back on her feet and even then she would like to have stayed a little longer. She

went home, however, and continued under advice and treatment for several months but has remained perfectly well ever since. (Last seen November 22, 1923.) This woman is a firm friend of the second surgeon in the case and a firm enemy of the first one.

III.—INTERNAL CHANGES, PSYCUOTHERAPY.

In some cases the treatment must be directed primarily toward internal rather than external modifications. *Three Thousand Years of Mental Healing* is the title of a book of historical medicine recently published. But scientific psychotherapy really dates back to an interesting episode which took place in connection with the life of the great philosopher Emmanuel Kant.

Kant suffered from gout. He discovered that by "directing with effort my thoughts toward some chosen indifferent object, for example, towards the many associated ideas brought up by the word Cicero," he could be distracted from the pain of his foot and fall asleep although his swollen toes would prove next morning that his pain had not been imaginary. He wrote a book on this phenomenon which really constitutes the beginning of scientific mental healing. (Scientific mental healing is to be differentiated from other sorts of mental healing, many of which have been successful, in that the purpose and technique have been studied by the scientific method and the results correlated. Interesting as a history of the development of psychotherapy would be it is entirely without the province of this paper, which will be devoted to a general discussion of the theory of the existing types.)

In general all psychotherapy depends upon the solution of psychological conflicts in the mind of one person by the efforts of another person. As is now well known, these conflicts may be conscious difficulties or unconscious struggles, or both. Apparently the unconscious conflicts or "complexes" are the more numerous and the more powerful, but the solution of the surface difficulties often proves to be sufficient to restore peace by a successful repression of the subterranean elements. The symptoms and diseases for which psychotherapy is useful are those in which these struggles from the unconscious push their way into the conscious life, usually in disguise. Everyone has unconscious impulses and desires which ordinarily remain unconscious because the individual is respectful of the wishes of society and not only refrains from offending but refrains from even thinking of offending.

Consideration of others limits the satisfactions of the self. These restrictions and renun-

ciations we are glad to make for the sake of society, i. e., we *suppress* certain wishes. But in addition to these known wishes there are many primitive impulses which are active and must be held back and yet of which we are entirely unaware. (This holding back, unconsciously, is known as *repression*.) We do become aware of them under certain circumstances; from scientific study we have learned to recognize certain ways in which they are gratified in disguise. This disguise may be useful and socially valuable, in which case it is called sublimation and requires no treatment. Or it may be useless to society, serving only as a safety valve; dreams are such a disguise. The disguise may, however, be not only useless but painful and dangerous and obnoxious. One of the commonest forms of this type of disguise is the neurotic symptom.

From this it may be seen that the function of psychotherapy is to strengthen a failing repression, or to remove certain unnecessary repressions and lighten the load, and finally to change the form of the disguised escapes from the harmful to the useful variety.

This is what everyone has in mind when they say of a neurotic patient, "If she had something to do to occupy her mind she would get over her headaches." Their theory is right as far as it goes; the difficulty is that they are neglecting certain facts, one of which is that the change from a symptom to a sublimation cannot be made simply as the result of an exhortation. There is a great deal of *resistance*, which is usually unconscious on the patient's part, to any such change and it is as difficult or impossible for him to do this without help as it is for a man in the ocean to swim to shore. He knows well enough that would save him but he usually feels it as the bitterest irony for one to tell him so, just as a drowning man would feel about being told to swim to shore. It is true but it is impossible.

RESISTANCE

A study of the reasons why it is impossible, the "resistance" as it is technically known, is one of the most important contributions to medicine made by psychoanalysis. It involves the existence in every individual of a Mr. Hyde as well as a Dr. Jekyll. This dual personality is often very apparent, but whether apparent or not it is active. The neurotic symptom is there for a reason; it has a purpose and satisfies a certain craving of the patient's unconscious. Consequently any effort to change it meets with opposition just as a child cries when one takes from it a knife even although the knife is to be replaced with a more satisfactory plaything. When the substitute arrives the crying stops

but that doesn't keep the baby from clutching the knife and resenting the deprivation. In this sense every neurotic patient opposes a dissolution of his symptoms, or in other words, *in one sense does not want to get well*.

This could be illustrated with scores of patients. Every doctor sees it every day. I will cite some of my own cases. Mrs. V., a woman of 47 (Case No. 951) came a long ways to tell a long tale of much woe, the mere description of which occupies three typewritten pages in our records. For years she had suffered from a pervading gloom with outbursts of sobbing and screaming at times, a great irritability, intolerance towards certain people, disinterestedness in her home and friends, unreasonable fears about all sorts of things, queer little impulses to do stunts, a feeling of peeplessness, weakness and general miserableness. While she was giving the history she sent her husband on three or four errands such as getting her a drink, finding her handkerchief, etc.

After a thorough examination we recommended psychotherapy. We told her that we had nothing else to offer but that this treatment would probably make her well. Instead of comforting her it seemed to upset her and the next day when her husband tried to bring her to the office she said she felt too ill to come and the husband came in to apologize. I explained the nature of resistance to him and told him that he ought not to aid and abet her in squirming out of treatment, but he merely cried and said, "I have been her slave all my life and this is the way she rules me and I am powerless to do anything. I realize that what you say is absolutely true, but I am not man enough to call a halt and so I will just have to take her home and put up with it."

This resistance is shown in all sorts of ways other than mere refusal to take treatment. One of my patients recently began treatment with a great flourish, talked about it to everyone, told me what a wonderful thing she thought it was, etc. But then she began to break appointments on one pretext or another and finally she quit coming altogether. Another patient made several appointments and found very good excuses for breaking them but when she finally got to see me she told me she had been trying for weeks to get an appointment and if I would give her an hour she wouldn't break it for anything, etc. She scolded me because I wouldn't begin the treatment that very day but insisted on talking over the outlines of what we were to do. She wanted an appointment the next day, or even the same afternoon. She never came back.

The resistance takes many other forms too numerous to relate in detail. One of them is

to take a dislike to the doctor; another is to have dreams in which the doctor is represented as a bad man. One of my patients said that the expression, "He is an old devil" kept coming to her mind constantly when she was in my office and she couldn't think who on earth it could apply to.

TYPES OF PSYCHOTHERAPY

All methods of psychotherapy aim at accomplishing the overcoming of this resistance and the transforming of the patient's energy from harmful to useful forms by one of two general methods:

1. Suppression.
2. Expression or analysis.

Suppressive psychotherapy is that in which the physician assumes an active attitude toward the patient's conflicts and endeavors to push them back into place. Expressive psychotherapy endeavors to remove them. It is something like medical and surgical treatment except that in psychotherapy the patient must be his own surgeon. Suggestion, persuasion, hypnosis, auto-suggestion, new thought, christian science, and the like, are all examples of suppressive psychotherapy. They don't deny the conflicts (even christian science calls them error or malignant animal magnetism) but they say that the thing must be forced out of existence; the patient must "forget it." (this really means, of course, that the conflicts are thrust deeper into the unconscious). This is a fine trick if one can turn it. It is quick; it is simple; it is inexpensive. Sometimes it is effective. In the vast majority of cases it doesn't stick for the obvious reason that the conflicts, like mice, are apt to play as soon as the cat's away. Consequently unless some measure is adopted so that the patient is continuously held under the thumb of the suppression (whether it is a doctor of strong personality a christian science reader, a hypnotist, or whatever) the symptoms often crop out again.

Sometimes, however, under suppressive treatment, an internal change takes place so that the patient is thereafter able to take care of himself. In this sense it is a little like poulticing a boil. As every doctor knows, this sort of home treatment many times does good. Every doctor also knows that most big boils, however, have to be lanced. In an analogous way the expressive method of psychotherapy aims to eradicate the conflicts, that is to let out the pus. The disadvantage of this is that it takes time, skill and money. The advantages are that it is permanent and that it makes the patient independent.

Of expressive psychotherapy there are also two types. One is by complete re-education. This is done under various guises. Dr. Edith

Spaulding, a New York psychiatrist, does this by taking a limited number of patients to live with her for several years. Others do it by teaching their patients something of abnormal psychology with particular reference to that patient's life. (See cases cited under "Situation Adjustments"). Others combine this with the psychoanalytic evidences in the case, that is they made an inductive psychoanalytic study of the patient with his aid and attempt to find from a study of the unconscious as well as the conscious factors the best way for the patient to develop himself. This is the method of Jung, and is well presented in a recent book by Beatrice Hinkle, *"The Recreating of the Individual."* It is sometimes called psychoanalysis, but it is very different from the orthodox psychoanalysis of Freud.

It will never pay to deceive the patient. Dr. W. F. Bowen, of Topeka, tells this story of one of the former State Hospital superintendents who had a patient who insisted that she had two frogs in her stomach. No argument could dissuade her. So he resolved to cure her by "suggestion," and after securing two small frogs which he concealed in his pocket, he passed a stomach tube, evacuated some gastric contents, and while the patient was retching, cast the two frogs surreptitiously into the basin. "There they are," he cried, "now we have them out and you're all right. There were some frogs in there after all." "Yes," said the patient, "of course there were. And there's a whole lot more in there where these two came from."

Another example of this type of psychotherapy concerns a woman of 50 who developed a pruritis vulvae. She had been to more than a dozen physicians and clinics but in spite of all sorts of treatments, hospitals and nurses, she had clawed herself frightfully and suffered as much as ever. In getting the history of the case I discovered evidences of certain sexual misapprehensions. The theory is somewhat too complicated to elaborate here but in general it had to do with certain doubts and dissatisfactions with her husband which had been kept entirely secret and which she had never related to this trouble. We talked them over together and she got perfectly well within three days and has remained so since.

These problems are not always sexual. Mrs. M., 28, came in, with a terrible anxiety neurosis; fearfulness, depression, tears, etc. She would walk the floor, wring her hands and cry. She was afraid of dying and of losing her mind. She said, "I know I don't have heart trouble but I feel as if I did and I can't get it off my mind, and it's this I'm afraid I'm going to die of." As I wrote the physi-

cian, "upon the delicate structure of a sensitive mind, there was made a deep, ugly scar, the reflex symptoms of which constitute her present illness." The scar was that another physician whom she had consulted in regard to palpitation told her that she had "appendicitis, gall stones, kidney trouble, stomach trouble, and heart trouble;" he put her to bed and gave her much medicine. None of it availed, nor did the reassurances of several physicians called thereafter. The reason they failed was, first, that they did not make a thorough physical examination, thinking that they appreciated the situation without that, and secondly, they did not make a study of the woman's temperament and psychological reactions to the point that they could use the best technique in explaining to her the nature of her illness. She got well immediately and has been to see us many times since in the past four years simply to report that she is still well and happy.

This type of psychotherapy is available to every physician who will take the trouble to use it. It takes a good deal of time but it yields good results in many cases. One difficulty is that patients are very often reluctant to tell their home physician factors of great psychological importance in their case. Consequently he is greatly handicapped in getting at the root of the matter. Another difficulty is that the doctor is too willing to pass the matter off with a careless adjuration or exhortation. He says, "Oh, there is nothing the matter with you," or he says, "Forget it." These are often helpful but they belong in the suppressive rather than in the expressive class of treatment and consequently they are rarely permanent, and moreover they often offend the patient. Or perhaps the doctor will say, "if you would quit thinking about yourself you would be all right." This is a very weak and sloppy re-education. It is exactly this transfer of interest which the patient cannot make and which she must be educated to make. This the doctor must aim to do. The fact that some ministers and teachers have done it more successfully than some physicians is not because they know more about it but because they see the necessity and make the effort.

PSYCHOANALYSIS

Psychoanalysis is the second type of expressive treatment. It is by all odds the most thorough going and sure. In spite of its expensiveness, there are many major neuroses which resist all other forms of psychotherapy for which it is easily the cheapest form of treatment because it brings results where everything else fails.

It is difficult to illustrate psychoanalytic

therapy, because it involves such long case histories and much intimate detail; also because it entails much in the way of unfamiliar "unconscious" content which would require elaborate explanation. Technically it consists essentially in getting the patient to express rather than repress all the ideas and feelings that he has or has had in regard to certain matters, particularly his symptoms, his dreams, and other disguised manifestations of his unconscious mind.

The "complexes" or repressed ideas and wishes which cause the pain for which the symptom is a relief are of many sorts; some of the more constant ones are becoming well known by name to even the lay public; e. g., the Oedipus complex, the inferiority complex, etc. Some of these depend directly upon certain misapprehensions, particularly those of children in regard to the mechanisms of birth. The illustration of this particular "complex" will give some idea of the nature of the development of a neurosis and its cure. We were asked to see a high school girl who had developed a very puzzling stomach trouble. She kept insisting upon attempting to have a bowel movement at frequent intervals and had other distress which had kept her in bed for over a month when I first saw her. I studied her case with her for over a month and it turned out that she had had the common childhood theory that pregnancy took place in some mystical fashion, either by mouth or in some other vague way, the only definite thing about it being that it was associated with an erotic feeling. One of her schoolmates had spooned with her some time previously and she had been kissed for the first time in her life. She had been raised with great strictness, and conceived the idea that kissing was wicked because of the danger of impregnation, and finally decided she was pregnant. Pregnancy, she thought, took place in the stomach somewhere and delivery took place by rectum. This explains her anxiety about her bowel movements. She was perfectly well thenceforth. (If these theories seem improbable to anyone, let them consult their own childhood memories or those of their intimate friends. Of two people who saw this manuscript before it was published, one young woman said, with some amusement, that she had had exactly the same theories and "went through hell," and the other told of a friend who was a freshman in the State University who still has such ideas and has discussed them.)

Psychoanalysis has its drawbacks; it is time consuming, expensive, tedious, difficult; it can be applied to intelligent patients only (and neuroses are not limited to the intelligent and prosperous) and it requires special

training. It is certainly the greatest therapeutic discovery in modern medicine, and offers much, moreover, to psychology, philosophy, art and literature in addition to its medical contributions. It behooves the medical profession to become better acquainted with it; the antagonistic attitude of the Journal of the American Medical Association has seriously misled the general practitioners into indifference; while the lay public is increasingly interested and informed. Yet the subject is first and last a medical matter, by and for the medical profession.

Psychoanalysis is a technical procedure, however, and it is as much a therapeutic specialty as is surgery. Consequently it should not be attempted by the general practitioner, anymore than should major surgery. There is much minor psychiatry, minor psychotherapy, which the general practitioner can, should, and must do, just as he does minor surgery. Various therapeutic techniques have been outlined in this paper. The key to the successful performance of minor psychotherapy is interest in the nervous patient, sufficient to permit a complete eliciting of the uppermost parts of the patient's mental content. If the pain and stress are relatively slight, this will give relief; if they are considerable, treatment should be deferred to the specialist.

This completes a survey of the available methods used in the treatment of the nervous and mentally sick.

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An Old Drug Dressed Up and a Very Efficient Remedy But Seldom Used

P. S. MITCHELL, M.D., Iola

Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

Every physician, doing general practice, is frequently confronted with the problem of treating the emergency injured, brought from the street and highways. These injuries may consist of anything, but for the most part, are abrasions, lacerations or contusions with abraded surfaces. Usually the wounds are upon the body surfaces covered with grease, which, with dirt, is worked into every crevice and, to add insult to injury, these, with other foreign matter are driven or rubbed directly into the wound.

Many and varied methods have been devised to free the abraded surface of debris, with the least possible irritation to the wound and at the same time minimize the spread of infection.

Soap and water cleanse but likewise irritate and spread infection, while bi-chloride and the phenols are dangerous if used in effective strengths. Continuous flushings or

irrigations with chlorine compounds in water are of benefit but impracticable. Following all these dressings, when they become dry, adherence is the rule and a puddle of pus and serum meets the attendant's vision on his next call.

The advent of the application of iodine to the body's surface had made its every sanctuary safe hunting ground for the surgical Nimrod. So it seems logical that if iodine applied to the healthy, unbroken skin freed it from infection, why should not the same rule apply to the broken skin, if the wound could be iodized.

The essayist had recently interrogated the Great Kocher on the strength of iodine which he used on the skin and his answer was that it made little difference; he had used all strengths from one half of one per cent to ten per cent and could see no difference in results obtained.

At this time, which was about ten years ago, there appeared on the desks of the physicians detailed samples of secret iodine mixtures from pharmaceutical houses. The vehicle consisted either of oil, glycerin petroleum jelly or some saponified mixture. In strength, the amount of iodine marked on the label did not usually tally with the actual chemical analysis showing, as was determined by the chemists of the American Medical Association Laboratory. Even with the amount of iodine far below the amount quoted on the label, they were all of marked efficiency.

It was at this juncture, following the above observations, the essayist determined to clear up, simplify and make practicable the whole process if possible. A solvent for the crystal iodine, that would likewise make a perfect solution in liquid petroleum was readily found in sulphuric ether. Benzol and other drugs were experimented with, but ether proved the most satisfactory as the others showed themselves to be more or less irritating to the wound. There may yet be another solvent that will supplant ether. About one-half of one per cent of iodine proved the most efficient, as that thoroughly iodizes the wound and yet is free from irritation.

If it is desired to use the oil in the nose or throat, it may be further diluted by the addition of the plain oil. If an unguentum iodine is desired, which is a very efficient method of applying iodine to the surface, a jelly may be made by simply melting ordinary vaseline and add the crystal iodine dissolved in ether. The process of preparation is very simple. One-half ounce of resublimed iodine is dissolved in four to six ounces of sulphuric ether and that poured into a gallon of sterile

liquid petrolatum; this is the stock mixture ready for application. The jelly is prepared as above with the same strength of iodine and same amount of ether.

The wound is cleansed with as little disturbance to the injured area as possible. Of this, more will be spoken in the latter part of this paper. Bleeding must be stopped and lacerations repaired as in any other surgical case. Six to eight layers of gauze are saturated with the oil and applied directly to the wound. This should be changed each twelve hours. Instead of adherent dressings, harboring beneath a puddle of pus, a clean wound greets the attendant.

Usually, burns even of the third degree will tolerate this preparation when its use is so desired.

When one wishes to apply iodine to the nose or throat, the oil may be diluted by the addition of plain liquid petrolatum and then introduced as a vapor.

If it is the plan to iodize the skin by prolonged application, the jelly should be applied. This absorbs better than the tincture and does not leave a dry harsh skin.

The secret formulae, unreasonable prices and methods of advertising are the objectionable features in many of the pharmaceutical preparations. One company in particular keeps the physicians regularly supplied each month with a liberal supply of iodized jelly, inclosed in a beautiful and innocent looking aluminum box. The trade-name crimped in the lid means little to the Doctor 'till he steps into the corner drug store and sees the same sitting on the counter ready to be handed out, when he realizes that he is the goat.

Coincidentally as this is being written, an iodized oil is detailed on my desk under the name of Blandol-Iodated. The formula is on the label and so far has proven quite as efficient as any. This is delivered at a price quite consistent with its cost and with no apparent intention of sales across the counter.

Perhaps this paper has offered nothing new but as the essayist could find nothing in the literature on the subject, it seemed not amiss to call to the attention of this body the service thus obtained.

This small and latter portion of the paper is devoted to the reminding of the profession of the efficiency of a drug that is fairly well known but seldom used.

The drug in mind is ordinary gasoline that is used in our Henry's. Where it accommodates itself more particularly is in cleansing fresh wounds, covered with grease and dirt, and in application to old wounds to remove dried crust and scabs that would otherwise abrade the healthy skin in removal.

As mentioned before in this paper it is a surgical axiom that all fresh dirty wounds should be cleansed with particular care to avoid irritation and to prevent the spread of infection. The wound should not be scrubbed or rubbed and nothing will cleanse it so well as to gently swab with cotton saturated in gasoline. This should be followed by alcohol to prevent the drying effect of the gasoline. There is a prevalent idea amongst the laity that gasoline is poisonous to wounds, which is not the case. Gasoline may be poured directly into an open wound in any quantity as a cleanser but should not be allowed to remain or saturate dressings.

In old wounds slow to heal, where crusts form and the patient does not return as often as directed, gasoline is the best cleanser.

It is needless to remind that gasoline is the only simple, inexpensive drug that thoroughly and quickly removes from the body the gum of old adhesive tape.

In conclusion there should sit on the handy shelf of every busy physician a pint bottle of gasoline to cleanse wounds, alcohol to remove the gasoline and a bottle of iodized oil for quick emergency dressings. They are simple and undramatic but will bring much happiness to both patient and his attendant.

—B—

Is the Death Rate From Appendicitis Increasing and If So Why?

R. C. DUGAN, M.D., Ottawa, Kansas

Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

The title of this paper is a question and it is much easier to ask questions than to answer them correctly.

The writer does not expect to answer this one unequivocally; but hopes rather to again stir up some discussion as to the proper time to operate or not to operate in acute appendicitis.

During the past two years several writers have expressed the opinion that the mortality from acute appendicitis has increased during the recent past. Dr. Kahn, in Medical Record of April 20-21, raises this question and reports 307 cases; 93 acute seen within 24 hours, no deaths; 19 local peritonitis, 30 hours, no deaths; 35 diffuse peritonitis, 31½ days, six deaths; 86 abscess, 4½ days, three deaths. This is a graphic table and in the writer's opinion represents about the average experience of most general surgeons. Kahn calls attention to the fact that about 40 per cent were late; indicating that some one, the patient, a relative or the doctor had blundered.

H. J. Randell in the Michigan State Journal, November, 1929, raises the same question and gives a table showing that the death rate,

1913 to 1916, as per 100,000 population has more than doubled with a very slight decrease in 1917 and 1918; he also states that English statistics, although showing a slightly lower mortality than the United States, has nearly doubled.

Randell believes that more prompt diagnosis should be made and that inexperienced operators waste too much time searching for the appendix and do too much handling of the intestines, also that the giving of purgatives before and after operation increases the mortality. He also calls attention to the importance in diagnosis of rigidity of the external oblique—in absence of rigidity of the right rectus. In discussing this paper C. L. Barber said he thought the teaching of A. J. Ochsner had done most to lessen mortality and went on to say that he did not believe it necessary to operate under the first 24 hours. The writer calls attention to this discussion to condemn it, as I believe that misinterpretation of Ochsner's teaching has been a fruitful source of increased mortality.

I had the pleasure of hearing Dr. Ochsner when he for the first time publicly advocated the method now so well known as the Ochsner Starvation Treatment, and have heard him discuss the subject several times since—both publicly and privately, and my understanding is quite different from the interpretation I have heard by others since; as I understood Dr. Ochsner, he did not advocate this treatment for all or even a minority of acute appendicitis cases but rather for a small minority of cases, and a minority that should be getting smaller rather than larger—namely those cases first seen by the surgeon on from the third to the eighth day of illness who are in extremely bad condition, greatly distended abdomen, respiration interfered with by gas distention of upper abdomen, and extension of peritonitis to the diaphragm—in fact cases any surgeon of sound judgment would consider inoperable under those conditions. If the shock of an anesthetic and more or less trauma be added at this time it might be the last straw to break the camels back; however I do not understand that Dr. Ochsner advocates this treatment for all acute cases—in fact I am sure that if he sees a case within 48 hours he usually operates, if within 24 hours, that he practically always operates and thereby avoids having to put many cases on the starvation treatment.

E. H. Ochanor, in Bulletin Chicago Medical Society of February 11-22, says that it was his good fortune to assist Dr. J. B. Murphy in some of his very first operations for appendicitis; he remembers the scornful remarks of one of the attending physicians as he looked at the acutely inflamed appendix

which Murphy had just removed and that it certainly took moral courage to go on with the work in spite of the opposition encountered. Later he was associated with A. J. Ochsner while he was working out the 'Starvation Treatment' in which he also encountered most violent opposition. The intent of these remarks he said were for the purpose of emphasizing the points that were then and since established, to wit: In the cases of acute appendicitis an operation should be done at once if conditions are proper—namely, proper hospital facilities, assistants, a competent surgeon and the consent of the patient.

Several other writers during the past two years have expressed the opinion that the death rate for appendicitis had increased during the recent past, but I will not burden you with further quotations.

In conclusion a perusal of the literature for the past two years would seem to prove that the mortality in acute appendicitis had increased. If this is true, what is the trouble and what should be done to remedy it?

To the writer it seems plain that we need another J. B. Murphy to again emphasize the need of earlier diagnosis and early operation by a competent surgeon.

With a very careful selection among the late cases for the Ochsner Starvation Treatment and when the treatment is decided upon—to remember that it cannot be properly given without a trained nurse—preferably in a hospital; that the technique of the Ochsner treatment is complex and requires a high degree of surgical judgment and very careful observance of minute detail and in the writers opinion, altho the Ochsner treatment has saved many lives, the misinterpretation of Ochsner's teachings has also cost many lives and finally we are to remember that purgatives of all kinds are ta-bu in the acute abdomen.

The writer has not of course attempted to give all of the possible causes for increased mortality such for instance as the to be expected incompetence of Osteopaths, Chiropractors, etc., but rather a few of what seemed to him the more patent errors of our own; and susceptible of correction by ourselves.

II

Insulin and the Treatment of Diabetes Mellitus With Diet and Insulin

HOWARD E. MARCHBANKS, Pittsburg, Kan.

Read before the Crawford County Society at Pittsburg, October 16, 1923.

To say that the work of Banting and Best and their co-workers in the University of Toronto has taken away the sting from diabetes mellitus is indeed putting it mildly. While insulin is still in its infancy yet several

hundred patients have been treated with it and very favorable results are reported from every clinic where it has been used. There is some difference of opinion as to how it should be used and I will discuss the differences and report a few cases that we have treated with very happy results.

The Eli Lilly Company has worked with Banting and his co-workers in making insulin obtainable in large amounts so that the diabetic world has had a chance at its use. To these people great credit is due because they have done a big work. The Insulin Committee had the process patented to prevent some one from obtaining the formula and having same patented and thereby preventing the world from having the benefit of insulin at its lowest cost. Great credit indeed, is due these men for the very careful way in which they have handled the whole affair.

The various clinics of the country have tested it out and are very favorably impressed with its action. It is not a cure for diabetes in any sense of the word but it is an antidote for glycemia (high blood sugar). It is absolutely a specific in the treatment of acidosis due to diabetes.

We have had two acidosis cases which I will refer to later. Dr. Major of the University of Kansas has reported three cases with complete recovery in one of them, while the other two were brought in too late for insulin as well as any other treatment. The other clinics, including the Mayo Clinic, give similar results. We have every reason to believe that acidosis from diabetes mellitus can be relieved by the proper use of insulin if seen in the pre-coma or early coma stage.

There have been very few if any bad results from the use of insulin due to the extreme care the committee and the Eli Lilly Company have taken. They allowed it to be used only by the clinics and clinicians that were equipped with laboratory facilities to do blood chemistry and were able to avoid the chance of overdose and combat same in case an overdose was taken. Information was sent out with the treatment concerning symptoms of overdose and means of treating the overdose, etc.

In this way insulin is being gradually introduced to the profession and before many months most every one who treats diabetes will be able to use insulin and thus make his patients able to take from 30 to 60 grams more of carbohydrate a day than he could without insulin. The big danger lies in the fact that many patients will depend too much on insulin and not hold to their diet. Many physicians will attempt to give insulin without outlining the diet as it should be. If such is the case insulin will be a harm rather than

a help, for in 75 per cent of cases no insulin is required if proper diet is maintained. 25 per cent of cases, however, do need it but they need the diet as well. If they are going to have one or the other give them the diet.

The Mayo Clinic has several men that are doing very excellent work with diabetes and insulin. In the July North American Clinics they give quite a detailed outline of their method of procedure. It would pay those who are interested to read these articles in detail for they are perhaps the most complete of any that are published up to that time. They have two charts that are very helpful in starting the patient out on treatment. With these charts one is able to figure out the maintenance diet for each patient. It has been found that the body needs at least .3 grams of protein for each pound of body weight so this can be used as a starting place in figuring out the diet. By these charts one is able to balance the diet with proper amounts of fat and carbohydrate when the amount of protein and the number of calories is known. They suggest to start the patient on 100 c.c. of orange juice every six hours on the day of entrance, which is usually in the afternoon, until they have time to work out his case. On the following morning they start him on his maintenance diet and hold him on this for four days. If he is not sugar free at the end of that time they give him one fast day. They then give him one or two days of one-half maintenance diet and then put him on the maintenance diet again for three or four days and call these last three or four days the test period. During this time most patients will run from 5 to 12 or more grams of sugar in their urine daily. The average of the sugar passed for the test period is taken as the surplus of carbohydrate in the diet. At this point insulin is given and the diet increased. The diet is usually raised to 2400 calories in adults in order to give them plenty to gain weight and strength on. The carbohydrate is usually increased 20 to 30 grams and the protein and fat accordingly. Protein has a 58 per cent sugar value and fat has a 10 per cent sugar value so one has to estimate the entire sugar value in the diet and then find the differences between the sugar value of his maintenance diet and the diet he is going to start his patient on and add the average number of grams of sugar he passed in his test period and this gives him the number of grams of carbohydrates that you must give insulin for. One unit of insulin will take care of or burn about 2 grams of carbohydrate. So you see we have quite a mathematical ratio to go by and while it is not absolute yet it will just about work out this way.

The insulin is put up in two sizes, H-10 in

which 1 c.c. contains 10 units and the H-20 in which 1 c.c. contains 20 units. Few patients take more than 20 to 30 units daily. (The new unit is the U unit 3-10 stronger than the H-unit.)

It is advisable to test the night specimen and the morning specimen of urine. If one finds no trace of sugar in either the morning or the evening specimen, 10 grams of carbohydrate can be added to the diet or 5 units of insulin can be deducted from the daily amount. If sugar appears in either case, 10 grams of carbohydrate are taken from the diet or 5 units of insulin are added to the daily amount until the tolerance is in this way gradually reached. When once established one should stay by it very religiously for when the diet breaks over then it is necessary to drop back quite a little to get started again.

The various clinicians differ in their opinion as to the time that insulin should be given. At the Mayo Clinic they prefer to give a single dose in the morning before breakfast in the less severe cases while to some they give two doses, one before breakfast and one at 3 p. m. Other clinics prefer three doses daily, one before each meal. Those that use the less frequent injection do so chiefly to keep from giving so many hypodermics. They think that the blood sugar going high just prior to the injection does not materially make any difference. While those using the three injections believe that to hold the blood sugar down to normal during the whole 24 hour period will run less chance of throwing down sugar in the urine and will thereby metabolize more carbohydrate than it would if only the single injection were given. It must be given just prior to the taking of food, usually 15 to 20 minutes before meals. This gives the sugar a chance to get into the blood so that the insulin can lower it or, saying it in another way, the food keeps the insulin from reducing the blood sugar to the danger point. The normal blood sugar is from 80 to 110 mg. per 100 c.c. of blood and should it be reduced to 60 mg. one gets a sweating and a weakness while if it reaches 35 mg. it is quite apt to produce unconsciousness and if allowed to remain or go lower death will result. To avoid this condition when sweating, nervousness, or weakness begins and the meal has been eaten it is necessary to take sugar in some form. The most simple way is to take 100 c.c. of orange juice and if necessary repeat it. Usually 100 c.c. of orange juice will be sufficient and it is better to not take more than enough to relieve the symptoms for if they do the blood sugar will be raised more and the benefit of the insulin will have been lost. I have one case that took an overdose from an ampule that she had used out of be-

fore and her dose was the same that she had used before. However, she grew tired and sweaty and weak. Her mother had been instructed as to the symptoms and what to do for her so she got ready her orange juice and gave it to the patient. She still felt quite weak so they called me. I ordered another 100 c.c. of orange juice with sugar and rushed down to see her. She was still very weak when I arrived and could not stand on her feet or hardly hold her head up. This was my second case and needless to say I was well enough excited. I stayed with her for two hours until she was able to raise her head and felt much stronger. It is well to have each patient experience the effect of a slight overdose while he is in the hospital so he will know what the symptoms are and how to treat them. In this way the chance of danger is made very small. The patients are taught how to sterilize their own needles and hypodermics and some of their people are taught how to give the hypodermic injections. The medicine is only potent when given hypodermically and has no effect whatever if given by mouth. Girls and young ladies especially, should use their legs for injections as a rule so as not to scar up their arms. The blood sugar should be tested several times while they are in the hospital but after they leave and their urine stays free once every three or four weeks is quite enough. The big thing is to keep them under observations and have them report at least twice a month for weighing and to check up on their diet.

There is a little book, Allen's Treatment of Diabetes, which is very beneficial to both the patient and the physician. It gives some suggestions in diets that are very helpful. It is quite a task to figure out balanced diets unless one has some kind of help or is very accustomed to making out diets. Joslin has prepared some diet cards that are also very helpful in this respect. These can be gotten in quantities for a small cost from Thomas Groom & Co., Boston.

I might state here that it is absolutely necessary to have the patient in the hospital for ten days or more. During this period they are taught how to test for sugar using Benedict's test which is the most simple. They are taught how to weigh their own food. It will be easier if they get scales that weigh in grams for grams are much easier handled than ounces in their diet. They are taught how important it is to keep away from quacks and made to see the bright side of their disease. They will most all enjoy watching their blood sugar stay down and their urine sugar free.

I have gone more into detail in this discussion than I had intended but the subject is

one in which I have been very much interested since the preliminary reports of Dr. Banting, so as soon as possible I obtained the insulin from Eli Lilly and have been very enthusiastic about it since.

I will give a short history of three cases that have been treated in this hospital.

Case No. 1, Hospital No. 2241. Miss M. W., a young lady 18 years old who was referred to me by Dr. H. L. Stelle. She gave a history of loss of weight, big appetite, thirst, weakness and polyuria. She felt well up to a month or six week before entering Mt. Carmel Hospital on June 3d, 1923. She began to feel tired and worn out. Began to get up at night to void her urine about three weeks later. She took a large amount of water at the same time. In January, 1923, she weighed 97 pounds. She weighed on entrance 84½ pounds. Had been working extra hard all winter. Had been eating more than usual but did not gain strength from food. Ate quite a lot of fruit. Had little trouble with eyes. No headache, no rheumatism, no acute illness. Past history negative. Menses had been regular without pain, of five or six days duration. Examination revealed a rather poorly nourished girl of 18 years. Eyes reacted normally to light and accommodation and pupils were equal and regular. Tonsils out, one doubtful tooth. Neck revealed no enlargement of thyroid or cervical glands. Chest, cardio-vascular system and abdomen were all negative. Rest of examination was negative except for the laboratory report. The quantity of urine passed in 24 hours was 2450 c.c. with a specific gravity of 1042, 7.8 per cent glucose or 191.1 grams. The blood sugar after fasting was 230 mg. per 100 c.c. of blood. Blood count was normal.

We put her on a high fat, low carbohydrate and low protein diet of Marsh and Newburgh—13 grams carbohydrate, 14.5 grams protein, 87.5 grams fat. (897 calories.) She became sugar free on the sixth day at which time we increased the diet to 22 grams carbohydrate, 30 grams protein and 135 grams of fat. (1422 calories.) She had gained one and one-half pounds in the first six days on the low diet.

This being our second case and having had no one to tell us how to go on with the insulin from here we began with 30 units daily. We gave her *10 H units before each meal and found that she would get quite weak even after taking her meal but no time while in the hospital did she have to eat her orange which she always carried with her. We soon learned, however, to increase the carbohydrate intake to the breaking point or threshold and then

there was no weakness after the insulin. We let her leave the hospital on the tenth day which was too early, we have found out since, for she had not really reached her tolerance in the diet as explained by the reaction referred to in the early part of the paper when she almost became unconscious from an overdose. She had gained 11 pounds in the 10 weeks and I allowed her to take a short visit to Kansas City for she was the type of patient that liked to weigh out her food and watch the sugar in the urine, etc. She had studied Domestic Science and has taken a great interest in the disease. I would call her an ideal patient. She gives herself the insulin part of the time when her mother is away or busy. Her blood sugar has remained between 110 and 129 mg. per 100 c.c. of blood which is very encouraging indeed. She has not what one would call a severe diabetes yet without treatment she would have been a very severe type within a very few months. These are the cases that with the help of insulin might some day be classed as cured. They must, however, be under almost constant care for they need one's encouragement and praise and all that sort of thing. They do much better where the folks at home help and the friends add a word of cheer for all they have heard about diabetes is that it is an awful disease.

Case No. 2, Hospital No. 2509. Mrs. D. L., a colored woman 52 years old from Girard, Kansas, who was referred to me by Dr. Frances Harper with a diagnosis of sugar in the urine. She came into the office on September 15th, 1923, at which time I examined her and received the following history. She began to feel badly in May, 1922, but went about her work of washing and helping to care for milk until August, 1922, at which time she began to lose weight rapidly and also was quite weak. She ate a lot of food but received no strength from it. She drank a lot of water and passed large amounts of urine. She was quite weak but had no pain. She felt more or less this same way until in June, 1923, she decided to go down to the side of a stream where she would lay on her cot. She had a portable bath tub which she took with her and she would get off her cot into the bath tub once or twice daily for treatment. I learned from the neighbors that she was quite a Christian Scientist and this was her prescribed treatment. When I first saw her she was complaining of severe weakness, thirst, hunger and loss of weight.

Physical examination revealed a very much emaciated, refined, colored woman of 52 years. Her face was thin and dry looking. Her arms, legs and ribs all were scarce of

*The H. unit was 7-10 as strong as the newer U. unit.

subcutaneous tissue. She was 61 inches tall and weighed 88 pounds with her street clothing on. Her eyes reacted normally. Her teeth were in bad condition, several decayed and a lot of pyorrhea. Tonsils were not especially good. Heart, lungs and cardio-vascular system fairly normal except blood pressure was 100 systolic and 80 diastolic. Abdomen negative except she complained of tenderness over most of abdomen. Vaginal examination was negative. Calves of legs were tender on pressure. This is one sign that is present on practically every diabetic patient I have had.

The patient's daughter was with her so I gave them both quite a lengthy outline of what was necessary to overcome this condition. I told them that it was necessary for her to be in the hospital for at least two weeks and perhaps longer so that we could study her more carefully and teach her how to live. I told her how serious diabetes is without proper care and how simple it is when properly treated. I believe that the half hour one spends in explaining to these people in detail what they are up against more than pays for time spent.

They decided to have her go to the hospital as soon as they could arrange it. They wanted me to tell them what to do in the meantime. All I could tell them was to do as she had been doing. To have told her anything else would have been taking a chance at coma. It is surprising how many patients with diabetes are sent home by the physician and told to eat nothing with starch or sugar, to eat lots of meat and fat and they will get along all right. These patients go home and go into coma within 96 to 120 hours. I think most of us here are beyond that stage for it seems to me criminal to so treat them when we have at our disposal laboratory facilities and methods of treatment laid down that will make of the pessimistic diabetic a very happy citizen. For this reason I told her to eat as she had been eating but to lose no more time than necessary in getting to the hospital.

She came in September 19th, and the laboratory findings on the following morning were: Blood sugar fasting, 350 mg. Total 24-hour urine sugar, 405 grams in 5000 c.c. of urine. Acetone present.

We put her on a maintenance diet as suggested by the Mayo Clinic, of carbohydrate 29, fat 160, protein 33 grams, much to my regret for on the second morning while her urine had much less sugar her blood sugar was up to 450 mg. per 100 c.c. of blood. Patient was in great pain over abdomen and chest and she grunted with each breath. She was semi-conscious and would only answer questions with yes or no. She grunted very much

as one does when coming from under an anesthetic.

I ordered 120 units of insulin to be given in 5-10-15 and 20 unit doses in the next 22 hours. Several of the doses were followed in 15 minutes with 50 or 100 grams of orange juice. We gave her 600 c.c. normal salt solution by hypodermoclysis. Also a cleansing enema followed by normal salt per rectum. Next morning the blood sugar was 350 mg. While at 4:30 p. m. it was down to 175 mg. After 60 more units of insulin the patient was much better although for the next five days we had to give her between 30 and 65 units of insulin daily on a diet from 764 to 1480 calories with sugar value between 51 and 62 grams. On the eleventh day after entering hospital we let her go without insulin for two days for a test period. She passed an average of 36 grams of urine sugar on a sugar value diet of 56 grams. In other words this gave 36 grams of carbohydrate that needed to be taken care of with insulin. We also increased the diet 11 grams of carbohydrate which would make 47 grams in all. This would take 23½ units of insulin to make her sugar free, counting one unit for two grams. We added an extra 2½ units to be safe and she ran only 5 grams of urine sugar. The next day we increased the sugar value 5 more grams and added 4 more units of insulin and she was then sugar free on the 15th day in the hospital and the 11th day after her acidosis. Her blood sugar at this time was 190 mg.

This patient remained in the hospital several days learning more about her diet and getting strength. She gained gradually in weight and was feeling good and able to walk about the hospital and grounds. The greatest part of all is that she was happy and was taking a new hope on life. She was going to have her teeth taken care of in the near future.

Case No. 3, Hospital No. 1442. This is one of the most interesting cases we have had. The patient was referred to me by Dr. Herbert Smith. I saw him at his home in the country on August 22, 1923, at which time he gave a history of having seen an M.D. two days before who had made a diagnosis of diabetes and told him to go home and eat nothing with sugar or starch, which is the same directions that many diabetics get.

I advised him to go to the hospital that evening because he was at the time very much acidosed and I explained to his wife that he was apt to go into coma unless he could get proper care within a short time. They did not bring him in until the next morning at which time he was a very sick man, complaining of severe pain in his right chest very similar to a pneumonia or pleurisy pain. He was

semi-conscious and was in great distress. He had been well up to about three weeks before and had felt very weak and lost a lot of weight all at once. He had a great desire for water and sweet foods but got no strength from his food. His feet had begun to swell on Sunday and he was hardly able to get about. He vomited water but could take some orange juice.

The physical findings were: Temp. 93, pulse 108, resp. 23. He looked very sick. His skin was dry and parched looking. His tongue and mouth were dry and his tonsils did not look good. Otherwise there was nothing remarkable about the examination.

His blood sugar was 600 mg. per 100 c.c. of blood. (Normal 80-110.) The urine was saved but was thrown out by accident before the quantity of sugar was estimated. However the single specimen had a lot of sugar with quite a trace of albumin, acetone and diacetic acid. There were also many granular and hyalin casts and pus cells in the urine.

We gave him 10 units of insulin at 11:45 a. m.; 10 units at 12:15 p. m.; 10 units at 3:50 and 10 units at 4:55 p. m. At 5:30 his blood sugar was reduced to 360 mg. At 8:30 we gave him 20 units more. I left the hospital at 11:30 p. m. at which time the patient was resting nicely and said he felt much better and was able to take orange juice and water. We had given him an enema on entrance and since he was unable to retain water we gave him 700 c.c. of normal salt by hypodermoclysis. (Had we have had more experience with these cases our doses of insulin would have been at least 20 units to the dose.)

The next morning his blood sugar was 240 mg. so we gave him 60 units of insulin with 35 grams of carbohydrate, 101 grams of fat and 51 grams of protein for the day. We did the same on the following day. By this time the patient was feeling like a different man and was wondering when he could go home. His urine at this time had 91 grams of sugar in the 24 hours.

The next two days (Aug. 26 and 27) he got 30 units of insulin with the same diet as before. Blood sugar on August 27th was 245 mg. On August 28 we gave him 20 units of insulin with one-half the amount of food. On this day he ran 13 grams of sugar in the urine. Blood sugar was 230 mgs.

On August 29-30-31 we gave him no insulin and gave him his maintenance diet. These were his test days which we ran at this time due to the fact that he wanted to get out of the hospital as soon as he could. He passed an average of 76 grams of sugar which was very high. This meant that at least 38 units of insulin would be needed to get him sugar

free on the diet he was on. We therefore gave him 50 units on September 1st and 2nd and found him free from sugar, as we had expected, on the 2nd. This was the day he had decided to go home and having taught him and his wife to weigh the food, give the insulin and make the test for sugar we let him go home with instructions to bring in a 24 hour specimen to the office in two days and to report for blood sugar in six days.

The man left the hospital on the 11th day due to his financial condition which was long before he should have left for it was the first day that he had been free from sugar and his pancreas had had no rest at all for his diet contained a total value of only 75 grams and 76 grams of glucose were being excreted daily during the test period, which shows how severe this case was. The pancreas will, however, get a rest from the insulin but it was rather risky to let him leave the hospital with so low a sugar value and with instructions for so much insulin to be taken. I explained the symptoms, however, in detail and gave them to know how dangerous an overdose was and what to do for an overdose and to leave off the dose if they were in doubt. This case will be worth following as in fact most every diabetic case is worth following. Some, however, are naturally more interesting than others.

There are many details that could be elaborated on, such as the routine in diabetic coma, explanation of the maintenance charts, etc., but that would prolong the time.

SUMMARY

1. Insulin allows the patient to take two grams of carbohydrate extra for each unit that he takes and thus gives him a bigger variety of food.
2. It is a specific in diabetic coma and is life saving.
3. It is an antidote for glycemia.
4. It is dangerous if not handled properly and will kill.
5. In 25 per cent of cases of diabetes it is indicated while in 75 per cent or the mild cases it is not necessary but enables the patient to use more sugar.
6. It can be given in one injection where less than 25 or 30 units are required daily and in two or three injections where more than 30 units are required.

—R—

The trend of the practice of medicine during the past decade is dependence upon artificial aids and mechanical contrivances. They are helpers to the practitioner's senses. But unless carefully directed by reason and self introspection, experiment and practice, these helpers weaken the personal equation of the practitioner.

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Mervin T. Sudler, M. D. Cleft Palate and Hare Lip

The condition which we are showing you today is illustrated by two cases. The first one, (Hospital No. 12451) illustrates the final result of several operations carried out through the co-operation of the family physician and parents. The child was born September 25, 1921. On June 12, 1922, the hard palate was repaired, but not the lip. He was older than he should have been for the easiest operation and the best results, but fortunately, he had but a single cleft and this one of a less width than usual. On October 1, 1922, the lip was repaired. On November 7, 1923, the final operation was performed, shaping the lip and closing the opening in the palate about one quarter of an inch long, which remained after the first operation. His entire palate is now complete. His lip has been shaped and you see the line of closure of the lip marked so you can see the relations. His lip is of almost perfect proportions and his defect will be hardly noticeable a little later; certainly, not at all, if he should choose to grow a mustache. He will now be photographed so that his picture can be preserved as a part of the hospital history. (Fig. 1 and 2.)

The second case (Hospital No. 12757) was born January 8, 1923. His family history is negative and his brother and sister are normal children. Nine days later the premaxilla was forced over and the lip closed. Here is the wax impression taken at the time, showing the condition as it then existed. He was rather sick for ten days following this. We would have preferred to have him slightly older; he might have stood the operation better. His parents returned to the hospital with him last June (June 11, 1923), but except for shaping the lip, nothing was done. They have returned now for the final operation, (November 2, 1923). The baby is only ten months old. It would have been better if he were a little older, but it is often difficult to secure the co-operation of the parents; and as the child is in good condition we shall attempt to repair the soft palate and the posterior portion of the hard. We shall make another wax impression first so as to record accurately the stages of the repair. The mucous membrane is now split with a freshly sharpened cataract knife and the flaps raised from the hard palate. This separation is carried out well to the edge of the alveolar border, as the secret of success at this point is complete mobilization. The soft tissues are attached to the posterior bony palate. We shall loosen

them by dividing them transversely. It is necessary to make two small incisions at the posterior angle of the jaw to relieve tension. The entire line is well mobilized now. The next step is to unite it by means of silk mattress sutures placed relatively close together. These are re-enforced by interrupted stitches of the same kind—usually one between every two mattress stitches, but at the junction of the hard and soft palates they are more numerous, as it is very difficult to obtain complete healing at this point at the first operation. Lead plates would have been used to relieve tension if there seemed to be much. However, as there seems to be little or none, they will not be used. (Fig. 2 and 3.)

DISCUSSION

The small victims of these deforming defects start their careers in life under handicaps of various degrees as to health, vigor and the other vital qualities that make life worth living. Any method which can restore a semblance of normal conditions is well worth while, for it is of service throughout the lifetime of the individual. The occurrence of congenital defects in the population varies for the different deformities, indirect hernia being the most common and occurring in four per cent, with club-foot, cleft palate or hare-lip in the middle ground (about one infant in twenty-four hundred is born with a hare-lip) and rare deformities, such as imperforate anus and exstrophy of the bladder at the other end of the series.

No definite cause for hare-lip and cleft palate is known. Mall states that most embryos obtained by spontaneous abortion show congenital defects of some type and he believes that misplacements in the implantation of the ovum explain many congenital defects and most of these early abortions. Heredity, syphilis and wide discrepancies in the age of parents have been mentioned as causative factors. The majority of patients, as in club-foot, come from poor surroundings from mothers lacking in vigor. Dr. Lyons states that an unusually large percentage of the cases at the University of Michigan come from the mining districts. In all cases coming under my observation, a long fraenum has been present invariably. Inasmuch as the effect of this condition in keeping the incisor teeth apart is well understood by dentists, this might be an important contributing factor or even the cause of the cleft of the alveolar border and lip in earlier life. In some patients there are other deformities in association with the cleft palate. In this connection, the widespread belief in maternal impressions as a cause should be mentioned. In one of my cases, the mother was very much depressed because her husband held her re-



Fig. 1—Oct, 1922



Fig. 2—Nov, 1923



Fig. 3—Jan, 1923



Fig. 4—Nov, 1923



Fig. 5—Apr, 1916



Fig. 6—Nov, 1916



Fig. 7—Nov, 1917



Fig. 8—Dec, 1920



sponsible for the condition since she had seen a similar case while pregnant. I was able to convince her of the lack of responsibility on her part when I found that this had occurred late in the pregnancy by showing her that the pre-maxilla, lip and palate fused the tenth week and the process was complete in normal cases in the twelfth week of pregnancy and therefore the failure to unite had occurred before she received any visual impression of the deformity.

A number of operations have been devised to remedy this condition beginning with the Von Langenback (a method we still use with additions and variations), to the recent work of Lane, Brophy, Lyons, Moorhead and Brown. In spite of the time devoted to the repair of this deformity, no method and no surgeon is uniformly successful. He who has no failures is not operating upon cleft palates.

Since these babies are always poorly nourished, they should be brought to the hospital as soon as possible and placed under the care of a competent pediatricist. They are not surgical emergencies and should never be treated as such. They should be kept in the hospital until their pre-operative condition is satisfactory, be that one week or many. The parents should be told frankly that careful study and patience are necessary and that no definite time can be set for the operation nor can any definite number of operations be stated as necessary to complete any given case. The shape of the jaws and face is largely the result of very gentle forces exerted continuously over plastic material during long periods of time. Any operation to be successful must take into consideration the growth of the child and the effect of these forces upon the final result, and the operation which at the time produces the best appearance may cause a very evident deformity with growth. (Fig. 5, 6, 7 and 8.) This is particularly true in the treatment of the lips. An early closure here gives a proper pull of the muscles and if done in the first weeks of life greatly reduces the extent of the cleft in three or four months though Brophy states that this closes the front at the expense of widening the rear portion.

Infants, as old people, do not stand prolonged or profound anaesthesia well. It is also well to reduce the amount of blood lost to the absolute minimum. The rule of Dr. C. N. Dowd never to attempt an operation that cannot be completed in an hour on a child under one year of age is an excellent one. The possibilities of acidosis, status lymphaticus, and hemophilia must be borne in mind and excluded as far as possible.

The first step in the severe cases is to re-

store the pre-maxilla to its proper position and the sooner this is undertaken, the better. If the pre-maxilla is removed the result is an exceedingly repulsive deformity as the child grows older. The restoration of the pre-maxillae is accomplished by splitting the vomer diagonally, denuding the edges and holding them in firm contact with silver wire for from sixteen to thirty days.

The lips may or may not be repaired at this time, depending upon the width of the cleft, the condition of the child, and other associated factors. Moorehead repairs the lip at the same time. Brophy and his associates later. I believe this latter practice yields the best results, but this is not as satisfactory to the parents. In closing the lips, the usual diagram in the text books on general surgery showing a large amount of additional tissue added to the columella is wrong. It looks well at the time, but as the child gets older, the lip becomes too long.

The tension stitches embedded deep in the tissues and tied in the mouth are allowed to remain for ten or twelve days. The superficial stitches in the skin should be removed in from four to six days. It is also necessary to take the shrinkage of the connective tissue into account and make the line of incision quite full. It is much easier to remove redundant tissue than to remove a dimple caused by contraction.

The proper shaping of the nostril is difficult. This is impossible unless the cheek is well released from the upper jaw and the tension relieved. The nostril must always be made smaller than its mate for some retraction always occurs. The cartilage also wrinkles curiously but it eventually straightens out. In some instances it is necessary to dissect out the lower half of this to prevent the nares from being too small and so converting the child into a mouth breather. The soft palate should be completed between eighteen and twenty months so that the proper method of articulation can be learned. The older the child the easier it is to make a satisfactory closure as the tissues are stronger and the parts larger. On the other hand, if it be postponed too long it interferes with proper phonation. Dr. Lyons recently stated that he believes that it is the practice at present to complete the operation too early and that it could wait advantageously until the child is twenty-four or even twenty-six months old without interfering with its phonation, but our practice has been to try to complete the operation by the time the child is twenty months old.

The technique of closing the hard palate is begun when the continuity of the anterior alveolar border is restored by forcing the pre-

maxilla over and suturing it. The pressure exerted at this time greatly narrows the cleft, as shown by the wax impressions made in various stages of the work. The closure consists in raising flaps and uniting them by mattress sutures. The method with the soft palate is similar, inasmuch as the tissues are split and brought together by mattress sutures. In the hard palate it is necessary to use some means of preventing tension, for no matter how perfect an operation may look when completed, it will prove to be a failure if there is tension. The palatine processes are pushed upward by the tongue, so there is a distinct angle. By freeing this from the bone and clipping the nasal mucous membrane at the edge of the hard palate, much room is gained. This point has been emphasized by Berry in the *Lancet*. Various other methods are used in this connection, such as tension sutures, lead plates and paraffined gauze.

The most common site of failure is at the juncture of the hard and soft palates and for the closure of this, the method suggested by Lane is used—viz., rotating a flap taken from the hard palate or a simple plastic slipping over.

A record of the various stages of repair of the nose and lip is kept by making a series of photographs. For the record of the palate, impressions are made with regular dental modelling compound. At first plaster casts were made from these, but more recently the impression alone has been retained.

All of these little sufferers can be improved—most of them can be cured in from two to five operations. Our greatest difficulty has been to secure the co-operation of the parents. Far too frequently, they fail to keep their appointments. They move out of the community and the operation is never completed. Thus, the human or sociological element plays a large part.

Among the older and neglected cases, the problems are more difficult. Here the fracture of bones and shifting of parts are necessary and it is impossible to eradicate completely the bony deformity which has resulted from the asymmetrical pull of the muscles.

In conclusion the following points should be emphasized:

1. Be sure the child is in the best condition possible before repair is attempted.
2. Close the hard palate early, the sooner the better.
3. Do not attempt too much at a time or take over an hour for your operation.
4. For the best results, repair the lip from four to six weeks after the bones have been united.

5. Complete the soft palate by the time the child is twenty months old.

R

Announcement of Removal

The many medical friends of Burroughs Wellcome & Co. will be interested in the removal of this well-known firm's New York establishment to their new building at 9-11 East Forty-first street. This building which is a modern steel framed, fire proofed twelve-story structure is of pure Gothic style.

It is located opposite the Public Library, just off Fifth Avenue, in what is recognized as the most central and select business district of the city.

A cordial invitation is extended to the medical profession by Messrs. Burroughs Wellcome & Co., to visit their new Exhibition Rooms at any time to inspect the display of fine chemicals, galenicals and other products for which the firm has been so long and favorably known.

The researches and experimental investigations carried on so many years by the firm through its laboratories and scientific departments have led to the accumulation of a wealth of special and unique information which is freely available at all times to medical men and scientific workers in general.

R

American Arsphenamines Now the World's Standard

A few years ago there was not a gram of arsphenamine made in this country, not a gram. We were abjectly dependent on other countries for our supply of this very important drug.

Now, thanks to the Dermatological Research Laboratories, of Philadelphia, we are in a different and more complacent position. Not only is arsphenamine now being made in America in quantity sufficient for all needs, present and future, but the quality is such as the world has never before known. As the result of researches and refinements in the manufacture of the drug, we now have an arsphenamine of greatly enhanced effectiveness, along with a greater margin of safety for the patient, than any of the imported drugs afforded.

As for neoarsphenamine, the first supplies of which also came from Europe, the circumstances are much the same. A very superior quality of drug, in fact the best drug known to syphilologists, now comes from the Dermatological Research Laboratories, branch of The Abbott Laboratories, Chicago. It has been endowed by chemists with a trypanocidal activity almost if not quite that of arsphenamine, whereas originally the activity of this related arsenical was considerably less.

THE JOURNAL

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Periodic Examinations of the Apparently Well

Those who occupy the front seats in the advisory council on public welfare and medical economics are religiously advocating judiciously prepared propaganda and personally conducted campaigns by the members of the medical profession for the purpose of impressing upon the minds of the people the inestimable benefits that may accrue from periodical examinations of the apparently well. In the general discussion of the subject no question has been raised concerning the extent to which the people would be benefitted. It has been intimated in some isolated comments that the discovery of the earliest manifestation of incurable disease may not add much to the subject's peace of mind or to his life expectancy. It has also been suggested that most people will be more content and maintain a more constant earning capacity in ignorance of pathologic conditions which cause no disturbance of function and promise no subsequent aggravation. On the other hand no one will deny that there are many pathologic conditions that are curable in their early stages but incurable when the physician is consulted regarding them.

In so far as the welfare of the people is concerned the argument may be stated in this

wise: No lives will be sacrificed by the discovery of incurable disease in the apparently well man; and though his peace of mind may be disturbed he will have time to adjust himself and his circumstances to meet the crisis fate has imposed upon him. The apprehension or mental disturbance caused by the discovery of pathologic lesions of no serious consequence may be relieved by the conscientious assurances of the examiner. The lives of a considerable number of people may be saved by the early recognition and early treatment of diseases which in their later stages are incurable. The number of lives to be thus saved will depend very largely upon the number of such diseases we are able to recognize at a sufficiently early period, with our present knowledge and the methods of, and facilities for, examination at our command. It is doubtful if an insurance examiner very frequently discovers the existence of a pathologic lesion of which the applicant is entirely ignorant. According to the modern conceptions of a conscientious internist such examinations are superficial. One must go more thoroughly than that into the case of a patient who comes to him with quite definite symptoms of disease if he is to make a definite diagnosis and intelligently prescribe a treatment. It may be assumed then that an examination of one who is apparently well, in order to determine if a pathologic condition does exist, must be even more thorough and more exhaustive.

Before the medical profession is definitely obligated to the furtherance of the proposed campaign it should be quite clearly understood whether "the periodic medical examination of apparently healthy persons is designed to detect the early evidences of disorder before discomfort, inconvenience, interference with work, or anxiety has driven them to seek medical advice for the treatment of established disease," or is intended simply to enable the examiner to make "an estimate of health or certain variations from an accepted normal range of healthy conditions."

If the purpose of the examinations is as stated in the first quoted paragraph the members of the medical profession should co-oper-

ate in every effort to popularize the plan, for the results will react largely to the credit of regular medicine, and yield appreciable benefits to the people. If, however, the purpose be such as stated in the second quoted paragraph then the plan should be assumed by, and included with the activities of, farm bureaus, free public clinics, and the various lay and semi-medical organizations that are already actively engaged in similar kinds of work.

If the examinations to be made are of no diagnostic value then it is inconceivable that any credit to the medical profession can result from persuading the people to submit to them. The trend of medical education has been to facilitate the definite and accurate diagnosis of disease and to discourage the much too common habit of giving opinions based upon indefinite and unreliable data.

From such a point of view, at least, the record blanks for such examinations do not indicate that such a degree of thoroughness is contemplated as to satisfy a conscientious practitioner or justify the people in demanding them.

These blanks were prepared by a Committee of the Council on Health and Public Instruction and a committee from the secretaries of state societies. The objection is offered that the blanks prepared do not outline an examination of sufficient scope to fulfill the purposes stated in the following extracts from the explanatory circular prepared by the committee:

"From both medical and lay sources requests have come to the American Medical Association to prepare a description of the objects to be attained, the methods to be employed and results which may be expected from inquiry into and observation of the tissues and physiologic functions of persons, young and old, who are not at any time aware of any disease or defect which is causing them to seek medical relief.

By resolution of the House of Delegates in June, 1922, the Council on Health and Public Instruction was authorized to prepare forms suitable for use by practitioners of medicine in carrying out the purposes of the periodic health examination, and the statement here submitted is offered in fulfillment of this obligation."

"Medical experience of the benefits of pe-

riodic examinations of presumably healthy persons is sufficiently widespread to make any detailed reference superfluous."

"The periodic medical examination of apparently healthy persons is *designed to detect the early evidences of disorder before discomfort, inconvenience, interference with work, or anxiety has driven them to seek medical advice for the treatment of established disease.*"

"The use of these forms, or their equivalent, is to be encouraged, in part because, by recording methodically observations and opinions as to the physical and functional fitness of persons passing through their hands, physicians will acquire an increasing skill and keenness in detecting early evidences of preventable and curable conditions, and also because, by the general employment of a thorough and complete method of inquiry by physicians, the laity will learn to appreciate the importance to their own health of good medical examinations, and expect attention to the details of personal hygiene on which continued health so often depends."

The first page of this blank is a quite elaborate questionnaire which goes into explicit detail regarding the patient's personal and family history, his habits, occupation, manner of life and so on—of some value perhaps in pointing out the factors favoring the incidence of certain forms of disability but of little importance in eliminating the possible incidence of other unrelated disabilities, and of still less importance if a complete physical examination is to be made, but most likely to prejudice the perception of the examiner.

On the second page is the blank for the physical examination. In this blank under urine it is indicated that the specific gravity is to be estimated and that the urine is to be tested for sugar. Presumably albumen is omitted by typographical error. In these days every first class hospital requires a complete urinalysis of all patients. If anything is to be learned from a complete urinalysis that knowledge should be available in cases where no symptoms point to the seat of a possible pathologic condition. Nowhere in this blank do we find a mention of blood, and yet an estimation of hemoglobin and a differential blood count often reveals evidence of unsuspected disease. It is doubtful if one should be satisfied that he may not have overlooked

an existing pathologic lesion without an x-ray examination of the chest, of the abdominal viscera and the digestive tract.

Further perusal of the literature leads one to suspect that he has been misled by the introductory paragraphs or that he has misinterpreted the statements made therein, and that the purpose of the examinations is not to discover what, if anything, is the matter with the man who is apparently well, but to note the obvious deviations from the normal such as defective vision and hearing, diseased tonsils, bad teeth, flat foot, moles, etc., etc. Of those who have taken our vaunted progress in medicine seriously, who have been impressed with the superiority of the modern diagnostic methods taught in our great institutions, who have been convinced by the constantly reiterated statement that upon early diagnosis depends the successful treatment of many diseases, who have read the clinical reports from our famous clinics and renowned hospitals and noted the thoroughness of the examinations made there, some, at least, will be disappointed.

And yet there is much to be expected for the public welfare even from periodic examinations of this sort. People already realize the value of a periodic inspection of their teeth and would soon quite as fully appreciate a regular periodic inspection of the rest of their equipment.

Now as to the bearing of the proposed plan upon medical economies. In what way will the medical practitioner be benefitted by encouraging the apparently healthy members—associate members one may call them—of his clientele to come to him for periodic examination?

It seems to be understood that these examinations are to be made by the general practitioners, each for his own clientele. No special skill is required, and no unusual equipment needed, and after a few examinations have been made we will acquire the routine habit. To complete an examination such as that indicated by the Health Examination blank will require at least a half hour. The preparation of the patient, especially a female patient, and the clerical work required

in making up the history record will take another half hour.

There are 1769257 people in Kansas and 2492 physicians or practically 710 persons for each physician. If each of these 710 persons is examined once each year it will require 710 hours or approximately 14 hours of the physician's time each week during the year, or 2 hours each day including Sunday (apologies to the Editor of the Bulletin for appropriating his method of calculation). Now if the regular price for an insurance examination be charged each of these persons, each physician would receive an added income of \$3550. And this sounds very attractive, but may be made to sound still better. At least ten per cent of the registered physicians are specialists and would not be expected to make these examinations, so that instead of 710 there would be 788 or \$3940.00. In reality that's just "blue sky." There will seldom be any occasion to lengthen one's office hours to accommodate the applicants for examination, or to seek new investments for the income therefrom. There will be few if any children among those he will be called upon to examine. The school nurse tells the parents when their children's tonsils and adenoids should be removed, when their teeth need attention, when their vision or their hearing is defective, and when their nutrition is below par and their diets need correcting. If there should be no school nurse then one of the agents of the Farm Bureau performs the duty. So the doctor, or the specialist, gets the work without having to solicit it—one should say without having to make the examinations and the recommendations himself.

The most persuasive arguments of a respected practitioner may convince twenty per cent of the apparently well members of his clientele of the especial value of periodic examinations. By persistently reminding them and redating he may succeed in examining one half of this number—once anyway. What will he get out of it besides his fee, if he gets that? In a reference to a report of examinations held in New York when 958 persons were examined it is stated that of this number 56 per cent had dental defects, 35 per cent had defective vision, 10 per cent

defective hearing and 30 per cent diseased tonsils and adenoids. If this percentage held out with the general practitioner's examinations, he would refer 56 per cent of his subjects to the dentists, 45 per cent to the eye and ear specialist and 30 per cent to the nose and throat specialist. However, there were 28 per cent with circulatory disorders largely functional heart disorders (?). Thirty-nine per cent of the women, or about 20 per cent of the whole had ulcerations, displacements and menstrual disorders. Then there were 16 per cent with malnutrition, 12 per cent with constipation, 2 per cent with syphilis and 3 per cent with tuberculosis. So that while the heart of the melon must go to the specialist, there will be something left for the general practitioner—the rind, a little of the flavor and some of the juice.

It is not the purpose of these remarks to belittle or discredit the general conception of periodic examination of the apparently well as outlined in the prospectus, for that is in harmony with the high ideals of modern medicine. The details of the plan as finally worked out by the committee, however, do not correspond to the prospectus; and at this time there is no occasion for the medical profession to deprive the school nurses and the various lay organizations of one of their most important functions, one that they have performed with satisfaction to themselves and to the people, and the one upon which their very existence depends.

CHIPS

Language, like its user, is finicky, else why pronounce o-i in women. Out of deference to the fair sex? Not now. Women live longer than men and are growing taller and the boot fits the other foot better in these latter days. "Ain't it?"

The high frequency electric current is recommended for the cure of cancer—the needle for the knife.

It takes thirteen muscles to smile but it takes fifty muscles or thereabout to frown. Smile and save mental and physical pabulum.

Doctors get too much seawater or colloidal money. Else why does it slip through their fingers so easily.

"It's me-self that's been taken for a great man in me time," said Hooligan. "Afther I had been in America tin years Flannagan comes over. I met him at the wharf and he cries out at the tip of his voice to me. 'Oh! Jasus! Is this you?'"

It was established by Bergmann and Hensler that there is a direct ratio between the volume of blood in the body and the size of the heart and the muscular development of the subject; and an indirect ratio with the subjects fat deposits.

The Department of Commerce has just announced some of the mortality rates for 1922. The rate for typhoid fever for the registration area is the west ever recorder, 7.5 per 100,000. The rate in Kansas was 6.1 per 100,000. The report shows an increase in the mortality rate from diabetes. The rate for 1922 being 18.4 as compared to 16.8 per 100,000 in 1921. The rate in Kansas for 1922 was 19.9 as against 15.6 per 100,000 in 1921.

There is no statistical foundation for the assertion that high blood pressure is to any significant degree causally related to such hygienic factors as high protein diet, the excessive use of tobacco, infected tonsils or infected dental tissues. Overweight alone seems to have a definite relationship to high blood pressure. At any rate these are the conclusions drawn from 16,662 examinations of policy holders made by the Life Extension Institute of the Metropolitan Life Insurance Company as stated in its bulletin for July.

McGinty had an attack of typhoid fever while in the army and was furloughed home while convalescent although greatly emaciated. His neighbor greeted him and said, "McGinty, I'm glad to see you're back from the front."

"Well", said McGinty, "I knowed I was thin but I didn't know I was that thin."

The Chairman of the Anti Saloon League credits prohibition with lowering the death rate in this country. The death rate from typhoid fever was lower in 1922 than ever before recorded, but the death rate from diabetes was higher. If prohibition was responsible for diminishing typhoid fever did it increase the death rate in diabetes? Public Health officials would probably find another explanation for the lowered death rate. In spite of prohibition the death rate from automobile accidents continues to increase.

In an address delivered before the annual meeting of the National Association of Retail Druggists at Detroit, Sept. 20, 1922, J. H. Beal is reported to have said:

"It is a profound mystery why the people

of the pre-ent generation should so violently run after the very things which their forefathers so violently ran away from in 1776. One of the chief indictments of King George set forth in the Declaration of Independence reads: "*He has erected a multitude of new offices and sent hither swarms of officers to harass our people and eat out their substance.*"

A recent authority has estimated that within the period in which the population of the United States increased ten per cent the number of persons holding civil office increased forty per cent, that the amount paid in salaries increased one hundred and fifty per cent, and that of males old enough to hold a job one in every forty-seven is now in some kind of government employment.

The same authority estimates that of the total revenue collected by the U. S. Government, one dollar in every five is paid out in salaries, and that the total salary list of the Federal Government is now approximately equal to \$10.00 for each and every man, woman and child of the entire population, without including the sums paid to the immense army of state and municipal employes. At the present rate of increase, two more decades will see one adult in every ten holding some kind of public office, and paid from the other nine.

According to a report recently sent out from the Children's Bureau of the U. S. Department of Labor, the only states which have not accepted the provisions of the Maternity and Infancy Act are: Vermont, Massachusetts, Rhode Island, Maine, where the legislature passed an acceptance act which was vetoed by the governor; Louisiana and Illinois, where the act received a substantial majority in the senate but failed of passage in the house; Kansas, where the act passed the senate unanimously, but did not come to a vote in the house; and Connecticut, where the 1923 legislature instructed the health department not to accept the funds available under the act.

Some laborers are close observers.

"Phat card did I play last, Moike?"

"A sphade, sir. I knowed because I saw yez spit on yez hands."

An anesthetic, whose effects were like those of ether or chloroform, was used in China in 220 A.D., by the surgeon Haoua-t'ouo. This is established beyond doubt by the text of Kou kin yi tong, which was brought to the attention of the Academy of Sciences in 1849 by Stanislas Julien.

The Chinese anesthetic, known as ma yao—that is to say, "the remedy which takes

away feeling—was extracted from India hemp, which also yields hasheesh.

The old Chinese text tells us: "Hacu-a-t'ouo gave a dose of mia yao to the patient, who a few minutes later became unconscious—that is, as though he were deprived of life. As the case demanded, Haoua-t'ouo would operate upon the person or amputate and remove the cause of sickness. Then he would draw the tissues together at the point of incision and apply ligatures.

"After a few days the sick man was on his feet again without having felt the least pain during the operation."—North China Herald.

In regard to the treatment of cancer Dr. Wm. J. Mayo is reported to have said that, according to the experience of the Mayo Clinic, 71.8 per cent of cases operated on for cancer when the disease is still localized—has not extended beyond the primary focus—are cured by operation and a large majority of the remainder greatly benefited. Surgical operation is the only method of removal to be seriously considered, because it permits removal, with the growth, of surrounding tissues and glands that might have become involved in the disease. The x-ray, radium and other agents have a field of usefulness in connection with surgery, but a patient should not be subjected to x-ray, radium or other similar treatment without careful surgical consultation, since if such agents are used while the disease is still local, and fail to cure, the resultant tissue changes delay dependable surgical operation and may perhaps prevent it.

Physicians who number bond men, investment bankers, among their patients frequently complain that bond men squander their health.

"The heads of three bond houses," my family doctor said to me the other day, "are patients of mine, they and several subordinate officers of other houses, and I'll be hanged if they aren't more careless with their health than is all the rest of my practice put together. They'll work like demons for months at a time and then try to make up for the loss of daily exercise and common sense routine by trying to crowd a year's recreation into a few weeks. They'll eat, and drink, too, a lot of stuff that's bad enough at home, but is doubly damaging when they take frequent business trips with irregular hours, heterogeneous food and the unavoidable strain of an exacting business. They are the worst spend-thrifts of health that I know among intelligent men."

"At least they are not as bad as doctors," I replied to my friends amazement. "When

they need medical service you've got to admit they don't go to quacks for it. They go to the reputable profession and to recognized specialists don't they?"

"What has that got to do with it?" the doctor asked. "Physicians can't avoid irregular hours, but they're not—"

"The argument is," I interrupted, "on the use of common sense, isn't it? You say that bond men don't use common sense about health. But as lax as they are in that, they are not as lavish in squandering health as physicians are in squandering money in so-called investments. Bond men at least exercise common sense enough to realize that it requires a doctor to exercise medical judgment for them. How many physicians realize that it requires a "doctor" of investments to select investment securities dependably? Ever hear of investment banker being swindled by a quack practitioner? How often are physicians swindled by quack investment schemes?"

"There are just two reasons why doctors, as a class, are notable for buying worthless securities. One of them is their failure to realize that in seeking good, sound investments you have to do exactly the same thing you do in seeking health—consult an honest, competent practitioner." (*Sam O. Rice, Invest. Bankers Assoc. of Amer.*)

One of our correspondents suggests that the name "realtor" somewhat recently appropriated by a certain group of business men has a legitimate etymology. It is derived from the two Latin words: *realis* meaning real and *taurus* meaning bull, "real bull."

It is not easy to evade the charge that our knowledge of the intimate mechanism of infection and immunity consists largely of words and diagrams—words coined for the purpose of expressing vague conceptions and diagrams to illustrate the same—without which our theories would be mostly unintelligible and with which they are essentially meaningless.

After all Abrams has a safe bet. To those who ridicule the claim that the earliest recognition of disease can be made by the examination of a few drops of blood on a clean white blotting paper the answer is: The early recognition of disease does not signify that it will progress—it may remain inactive for years—possibly always. And these cases that don't progress, that never manifest any recognizable signs or symptoms of disease, are easy to cure. One who can convince enough people that he can diagnose and cure diseases that do not manifest themselves in any

way to the patients, or other members of the medical profession, should have no serious worry about his mundane future.

Bowman in an article on Syphilis and Tuberculosis (London Lancet, Dec. 15) arrives at the conclusion that in cases in which syphilis and tuberculosis are present in the same individual, the administration of 606 and its analogues may be followed by disaster. If organic arsenic is used, it should be administered in extremely small doses and at wide intervals. If no disturbance follows the injections, treatment may be continued cautiously, but it should be at least temporarily suspended if focal or general reactions occur and the condition carefully watched.

Winterfield and Hahn, from blood examinations in a series of cases of scarlet fever and measles, came to the conclusion that the leucocyte picture is of considerable value in the differential diagnosis of these two diseases. Leucocytosis was always found in scarlet fever, rarely in uncomplicated cases of measles. Lymphocytosis was common in measles while a lymphopenia was the rule in scarlet fever. High eosinophilia was found in scarlet fever, especially during convalescence, and in doubtful cases, with indefinite desquamation and no history of a rash, may be considered as diagnostic of scarlet fever.

—R—

PERSONAL

Dr. J. F. Hassig, Kansas City, Secretary of the Kansas Medical Society, with his family spent the holidays in New Orleans.

Dr. O. P. Davis, Topeka, is installing a complete electrical equipment for electrotherapy, etc.

Dr. D. D. Wilson, Nortonville, who was disabled for several weeks is again attending to business.

Dr. J. C. Bennett, Eskridge, was very seriously injured in an automobile accident at Alma on Jan. 4, and died the next day.

Marjorie, the seven-year-old daughter of Dr. and Mrs. E. N. Martin of Clay Center, died December the 29th. She was ill only twenty-four hours, death resulting from an unsuspected heart lesion.

Dr. Robert Algie of Clay Center has recently installed some elaborate electric therapeutic apparatus. The outfit embraces also some very good x-ray equipment including that for both fluoroscopic and stereoscopic work.

SOCIETIES

SUMNER COUNTY SOCIETY

Sumner County Medical Society met for the annual election of officers and for a scientific program at the Community Park House in Wellington, Thursday evening, December 6. The County was well represented and much interest was shown in the meeting. Dr. Cox of the State Tuberculosis Clinic, who had held a clinic in Wellington that day, was the guest of the evening, and presented a very complete and helpfully suggestive paper on the 'The Part Played by the General Practitioner in the Solution of the Tuberculosis Problem.' A free discussion of his paper followed and some valuable points were brought out. One concerning the 'follow up observation' of tuberculars was especially timely. Dr. Axtell of Argonia read a good paper stressing the importance of, and the responsibility resting with the general practitioner in the early detection of cancer and the proper advice and management of his patient thereafter. He emphasized the fact that in Sumner County there had been twenty-eight deaths from cancer in the past year while only eight from tuberculosis. Dr. Hatcher gave a most admirable series of 'case reports' illustrated by lantern slides, of cancer of the face and lip, showing the results he had obtained in their treatment with radium. The men were enthusiastic and hailed it as a great day when such results were possible with that dread involvement of the lip. The following officers were elected for the ensuing year. Dr. Earl Clark, Belle Plaine, president; Dr. John Caldwell, Wellington, vice president; Dr. T. H. Jamieson, Wellington, Secretary and treasurer; Dr. W. H. Neel, Wellington, censor for 3 years.

T. H. JAMIESON.

STAFFORD COUNTY SOCIETY

Society met in St. John at 3:00 p. m., Dec. 12, 1923. Members present: T. W. Scott, F. W. Tretbar, J. J. Tretbar, Stafford; M. M. Hart, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. Dr. W. F. Bernstorf of Pratt, was a guest.

This being the annual meeting the following officers were elected for 1924: J. J. Tretbar, Stafford, president; T. W. Scott, Stafford, vice president; J. T. Scott, St. John, secretary-treasurer; W. L. Butler, delegate to State Meeting; J. C. Butler, alternate; J. T. Scott, M. M. Hart, J. C. Butler, censors. A communication was read from Dr. W. F. Peterson, Chicago, Secretary American Aid for German Medical Science. Five dollars was appropriated to that cause.

The afternoon session was concluded by the following papers: Dr. M. M. Hart, retiring president, delivered the annual address, reviewing recent medical progress and complimenting the members for their loyalty to the society and high standard of the papers presented. He was followed by Dr. W. F. Bernstorf who read a very interesting and instructive paper on Insulin in the Treatment of Diabetes. Aside from the theoretical aspect of the paper the doctor gave valuable practical points in the use of insulin relating a number of cases from his personal experience. The discussion was somewhat in the nature of a questionnaire, the members taking advantage of the opportunity to have cleared up points about which they were in doubt. It was one of the best papers read before the society during the year.

This was followed by a paper on The Minute Circulation of the Cerebro-Spinal System with Lantern Slide illustrations. The paper dealt with the minute anatomy of the circulation of the cerebro-spinal substance and developed the theory of Sajous who denies the theory that the cerebral vessels are terminal, but that the capillary vessels are replaced in the nerve substance by neuroglia cells and their fibres which connect to the so-called terminal vessels and are in reality minute channels for circulatory purposes.

Following the literary program a fluoroscopic demonstration was held and a number of cases examined among them being one chest case and a stomach after a barium meal.

The banquet was served at 7:00 p. m., at the home of Dr. and Mrs. J. T. Scott, and was attended by the doctors and their wives. A sumptuous repast of turkey and the usual trimmings met the anticipations and appetites of all. Then the men smoked and the ladies smiled and listened while the orators orated under the skillful direction of Dr. J. J. Tretbar, Stafford, who was master of ceremonies. Several ladies were on the evening program but were unable to attend with exception of Mrs. C. S. Adams who arose splendidly to the occasion in a happy response to the subject Living with a Doctor Twenty-Five Years.

The High School orchestra furnished excellent music which aided materially in the success of the event. Everybody went away saying "do it again."

J. T. Scott, Secretary.

SHAWNEE COUNTY SOCIETY

The annual meeting of the Shawnee County Medical Society was held at Pelletier's Tea Room, Monday evening, December 3.

After the reports of the Secretary and Treasurer had been read, the following of-

ficers were elected: W. H. Weidling, President; Robert B. Stewart, Vice-President; Earle G. Brown, Secretary; M. B. Miller, Treasurer; C. F. Menninger, C. E. Joss and W. E. McVey, Censors.

The meeting was then adjourned and the members, their wives and guests demonstrated their attainments in gastronomy at the banquet tables. The banquet was followed by a very amusing program furnished by members of the society.

According to the Secretary's report the society has 143 members and has had an average attendance of 52 at its meetings during the year. A short sketch of the history of the Society was supplied by Dr. W. S. Lindsay:

"The Shawnee County Medical Society approaches the time when "ancient and honorable mention" may be made, having passed it's fifty-seventh birthday.

Dr. Brown was secretary at its organization and remains secretary today. A chronological history is as follows: Organized August 4, 1866; President, Dr. M. Baily; secretary, Dr. S. C. Brown; treasurer, Dr. Erastus Tefft. In 1870, Dr. George Wyman was president and Dr. D. W. Stormont was secretary.

It is interesting to note that in 1871 these men with associates, organized the Kansas Medical College of Topeka, under special charter of the state. A notation of medical events at that time says: "The college will be opened with a full board of directors and faculty on the fourth day of October, 1871." The present board of directors are:

Erastus Tefft, President; Samuel M. Strickler, vice-president; Dr. D. W. Stormont, secretary; Silas E. Sheldon, treasurer; and R. D. McDonald, Peter McVicar, H. Clarkson, Charles M. Eskridge and Rev. Linus S. Blakely, directors.

Faculty: S. E. Sheldon, M.D., treasurer, Professor of Theory and Practice of Medicine and Clinical Medicine; Erastus Tefft, M.D., President, Professor of Surgery and Clinical Surgery; D. W. Stormont, M.D., Secretary, Professor of Diseases of Women and Children; A. Vesper, M.D., Professor of Materia Medica and Therapeutics; L. Y. Grubbs, M.D., Professor of Descriptive and Surgical Anatomy; Robert D. McDonald, M.D., Professor of Physiology and Microscopy; A. M. Wilder, M.D., Professor of Military and Clinical Surgery; Eli Lewis, M.D., Professor of Obstetrics; N. T. S. Noble, M.D., Demonstrator of Anatomy. The chair of Professor of Anatomy was not filled at that time.

Through failure of agreement on vital matters connected with this organization, it failed

to function and so far as can be learned, a course of instruction was not given.

The County Society continued to hold meetings, quarterly, with some irregularity till 1881, when the Topeka Academy of Medicine and Surgery was organized, being practically a continuation of the work of the County Society.

Dr. J. W. Redden was first president and Dr. William H. Richter was first secretary of this reorganization. The records of this society not being available, we only know that in 1890, Dr. L. H. Munn was president and Dr. D. F. Rogers secretary. The membership at the time of its organization consisted of: George L. Beers, W. H. Early, B. D. Eastman, L. Y. Grubbs, G. W. Hogeboom, G. B. Hibbens, D. C. Jones, Frank Bailey, J. P. Lewis, W. S. Lindsay, D. K. Longshore, J. C. McClintock, L. H. Munn, H. C. Minor, M. R. Mitchell, G. J. Mulvane, Andrew Pearson, George H. Prickard, G. W. Redden, S. E. Sheldon, and D. W. Stormont. These members with others who came later kept the fires of regular medicine burning in Topeka until January 29, 1901, when under the chairmanship of Dr. W. E. McVey, the present organization was effected."

FRANKLIN COUNTY SOCIETY

At the regular meeting of the Franklin County Medical Society, December 26, 1923, the following were elected as officers for the year 1924: President, Dr. G. C. Mahaffey; Vice President, Dr. J. R. Scott; Secretary and Treasurer, Dr. W. L. Jacobs. This Society will open the next year's work with a banquet for the members and their families, January 30.

G. C. MAHAFFEY, Secy.

LABETTE COUNTY SOCIETY

The Labette County Medical Society met at the M. K. & T. Employes' Hospital, at Parsons, December 27, 1923, at 7:30 p. m. In the absence of the president, Dr. K. R. Scott, Dr. E. W. Boardman, presided. The Society was entertained by the Staff of the above named institution, Drs. Albert Smith, J. C. Creel, and E. T. Johnson. A five course dinner was served by the very efficient nurses of the hospital in a sumptuous manner which was hugely enjoyed by about twenty-five hungry doctors. A smoker followed, after which was the election of officers. Dr. J. H. Henson, Mound Valley, was elected President; Dr. E. T. Johnson, Parsons, Vice-President; Dr. D. R. Wilson, Mound Valley, Secretary; Board of Censors, Dr. George A. Landis, Parsons, Chairman, Dr. O. R. Stevenson, Oswego, and Dr. M. C. Ruble, Parsons.

After the election of officers the society was favored by the presence of Dr. R. C. Davis, Kansas City, Mo., who spoke on the "Affections of the Chest, but more especially Pneumonia and its Sequelae," which was very instructive. The Society adjourned to meet the fourth Wednesday night in January, at the Chamber of Commerce at Parsons.

D. R. WILSON, M.D., Secretary.

THE CENTRAL KANSAS SOCIETY

The regular quarterly meeting of the Central Kansas Medical Society was held at Hays, Kansas, in the St. Anthony Hospital, December 20, 1923. There were about forty members present with quite a few visitors from adjoining societies. The Hays doctors were hosts to the Society and proved themselves to be equal to the occasion as the line of entertainment and the program that was prepared by them deserves worthy mention.

The meeting was called to order at 1:30 p. m. by President D. R. Stoner, of Ellis, and following a short business meeting the officers for the year 1924 were elected as follows: President, Dr. D. R. Stoner, Ellis; Vice-President, Dr. F. K. Meade, Hays; Secretary-Treasurer, Dr. Leo V. Turgeon, Wilson; Delegates to state convention, Dr. Stoner, Ellis; Dr. A. O'Donnell, Ellsworth. The selection of the next meeting place was taken up and on the invitation of Dr. Hawes that the society come to Russell for the March meeting it was voted to accept same. Dr. B. A. Higgins, Lucas, was elected to membership in the Society. Following the business meeting the regular program was carried out.

Cancer of Stomach, Dr. A. O'Donnell, Ellsworth. Discussion opened by J. B. Carter, Wilson.

Clinical Cases, Dr. J. B. Betthausen, Hays.

Report of a few mental cases, "Conscious Conflict," Dr. M. S. Gregory, Dighton. Discussion opened by Dr. K. A. Menninger, Topeka.

Dr. Geo. F. Zerzan presented a very interesting case for clinical diagnosis which was discussed by Dr. Karl Menninger, Topeka.

Following these papers the members retired to the local moving picture theater where they viewed the Wertheim films taken from the Wertheim clinics at Vienna. This was thoroughly enjoyed by all the members. A banquet was then given the Society at the Brunswick Hotel by the Hays physicians and the papers for the evening program were then read. Dr. Karl Menninger, Topeka, read a paper on "Some Interesting Neuro-Psychiatric Cases," with discussion opened by Dr. M. S. Gregory, Dighton. Dr. Lindsey S. Milne, Kansas City, Mo., then read the main

paper of the meeting on "Pneumonia." This paper was well prepared both from scientific and practical standpoints as he gave many very interesting practical points for the general practitioner to take home with him. Dr. Milne brought out that you can have all the symptoms and signs of a pneumonia without finding any lung signs. In other words you can have a systemic pneumonia as well as lung pneumonia that will tax your wits in diagnosis. The meeting adjourned by giving Dr. Milne a rising vote of thanks for coming out to our Society. The next meeting will be held at Russell in March, 1924.

LEO V. TURGEON, M.D., Secretary.

R

BOOKS

Pennington's "Diseases and Injuries of the Rectum, Anus and Pelvic Colon," 679 illustrations, including 2 plates, cloth \$12.60. By J. Rawson Pennington, M.D., F.A.C.S., Proctologist to the Columbus Hospital, Veterans' Hospital No. 30, and the United States Marine Hospital. Chairman of the Scientific Assembly, Section on Gastro-Enterology and Proctology, American Medical Association. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia.

This is an exceptionally complete work on the subject. The author has gathered all that has been written on the subject and included whatever tested true. He has given to the reader the benefit of the observations of a large number of surgeons and proctologists together with his own observations and conclusions. The book is particularly illustrated.

1922 Collected Papers of the Mayo Clinic, Rochester, Minn. Octavo of 1394 pages, 488 illustrations: W. B. Saunders Company, 1923. Cloth, \$13.00 net.

This volume of collected papers that has recently been published is a library in itself. The papers are grouped under the following heads: alimentary tract; urogenital organs; ductless glands; blood and circulatory organs; skin and syphilis; head, trunk and extremities; brain, spinal cord and nerves; organic and physiologic chemistry; general and miscellaneous technic.

The papers show the results of thorough investigation and the subjects are discussed from the most modern viewpoint.

Principles of Bacteriology by Arthur A. Eisenberg, A.B., M.D., Director of Laboratories, St. John's Hospital, Cleveland, Ohio, etc. Second edition. Published by C. V. Mosby Co., St. Louis. Price, \$2.25.

The author has added considerable new material bringing many of the most important subjects up to date. Description of the newer tests for syphilis have been added and much concerning the various modifications in technic. Much also has been added to the dis-

cussions of anaphylaxis and a chapter on the relation of leucocytes to infection.

Obstetrics for Nurses by Charles B. Reed, M.D., Obstetrician to Wesley Memorial Hospital, Chicago. Published by C. V. Mosby Co., St. Louis. Price \$3.50.

This is a very complete textbook and while prepared for the instruction of nurses it will be found a very handy text for the doctors. Certainly nothing has been omitted that the nurse should know. Some additions and improvements have been made in the second edition.

A Practical Text-Book of Infection, Immunity and Biologic Therapy with special reference to immunologic technic. By John A. Kolmer, M.D., Dr. P.H. Professor of Pathology and Bacteriology in the Graduate School of Medicine, University of Pennsylvania, with an introduction by Allen J. Smith, M.D., Professor of Pathology in the School of Medicine of the University of Pennsylvania. Third Edition, thoroughly revised and mostly rewritten. Octavo of 1210 pages containing 202 original illustrations 51 in colors. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$12.00 net.

The author, in the third edition of his work, has included practically all that has been learned on these subjects during the six years that have elapsed since the second edition was prepared. The title has been changed a little because he is preparing a separate volume on the subject of chemotherapy. This volume contains descriptions of immunologic methods and technic for the administration of sera, vaccines, etc. Several new chapters have been added. The chapters on anaphylaxis, allergy and hypersensitiveness have been practically rewritten. The subject of non-specific protein therapy is also fully discussed.

A Manual of Proctology by T. Crittenden Hill, M.D., Instructor in Proctology in Harvard Graduate School of Medicine, etc. Published by Lea & Febiger, Philadelphia and New York. Price \$3.25.

The author believes that a small volume on this subject is needed on the ground that larger encyclopedic treatises are apt to weary the reader with excessive details. He is probably correct in his opinion, and he has given to the profession a very excellent practical treatise which should meet a cordial reception.

The Care of the Baby. A Manual for Mothers and Nurses, containing practical directions for the Management of Infancy and Childhood in Health and Disease. By J. P. Crozer Griffith, M.D., Professor of Diseases of Children in the University of Pennsylvania. Seventh Edition Thoroughly Revised. 12mo of 478 pages with 104 illustrations. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$2.50 net.

The author has endeavored to present a source of information on the care of the baby

for those who may be interested. It tells how to take care of the baby—bathe, clothe and feed it, how to tell when it is sick and what is the matter with it, how to treat its particular form of illness—what remedies to use and how to use them. It also gives a list of simple prescriptions for various conditions. It is rather a handy little book to have in the family.

R DEATHS

C. Clayton Koons, Larned, aged 51, died in November, 1923, of cerebral hemorrhage. He was graduated from the Kansas City (Mo.) Medical College in 1901. He was a member of the Kansas Medical Society.

Dr. James G. Bennett, Eskridge, aged 45, died January 5, 1924, from serious injuries received in an automobile accident at Alma, Kansas, the day preceding. He was graduated from the Kansas Medical College, Topeka, Kansas, in 1904. He was a member of the Kansas Medical Society.

R Annual Meeting of American Congress of Internal Medicine and College of Physicians

The next annual meeting of the American Congress of Internal Medicine and the College of Physicians will be held in St. Louis, February 18th to 24th, 1924.

The president of the Congress, Dr. Ellsworth S. Smith, has perfected his various committees so that now all committees are working diligently to arrange proper hotel accommodations, headquarters, transportation facilities, scientific programs, and clinical sessions at the various hospitals.

The management of the various hospitals and the clinicians of St. Louis are lending themselves very freely for the perfection of the clinical sessions to be held in the hospitals, and for the general entertainment of our visitors.

The Hotel Chase, one of the newest, largest and best equipped hotels of the city, has been selected as headquarters for the Congress and, to date, several hundred reservations have been made.

The Committee on Hotels announces that all of the hotels of St. Louis are more than anxious to do everything possible to see that visitors are cared for conveniently and economically.

Physicians who desire hotel reservations or any other information regarding the meeting can receive such assistance and information desired by addressing their request to the President, Dr. Ellsworth S. Smith, Humboldt Building, St. Louis, Mo.

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Illeus

DR. HUGH L. CHARLES, Atchison

Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

More deaths are probably produced by intestinal obstruction than by any other acute surgical condition in the abdomen, the mortality varying from 28 per cent to 60 per cent in the different types and the difference in management of same. Practical work in blood and urinary chemistry, urea and chlorides determination particularly, associated with the vast amount of experimental physiology and its resultant pathology have all been of marked aid. Closer observation of these dangerous cases and the realization of the absolute necessity for immediate heroic treatment has saved many lives.

Adynamic or non-mechanical illeus may result from reflex causes such as, trauma to the abdominal wall, renal or biliary colic, during acute infections, as a concomitant of shock or uremia, following hydrocele or contusion of the testicle, injuries to the spinal cord in dorsal region, neuroses or hysteria. Frequently a paralytic illeus follows in peritonitis cases, likewise an embolism or thrombosis or even pressure on the mesenteric glands or artery is at times responsible. Many times it occurs without apparent cause, following extraperitoneal operations or operations upon the extremities.

The area of gut involved may be large or small, ten centimeters must be included to cause a complete cessation of motility, larger areas generally mean occlusion of a main vessel. The paritonitic paralysis is due rather to infection than other causes.

That paralytic or adynamic illeus is due to inhibition of the vagus, and is the reflex result of nerve end irritation transferred through the spinal cord to the sympathetic is still questioned.

Entirely opposite to the adynamic or non-mechanical is the dynamic or purely mechanical type of illeus. It is of spasmodic nature, the most frequent cause being previous abdominal operations. New growths of gut wall, embryonic bands, hernia, likewise volvulus and intussusception may be included in the etiology but we shall rarely err following recent abdominal operations if we diagnose obstruction by a band. Mechanical illeus

if unrelieved develops into the paralytic type, the musculature becoming paretic after the strenuous but unsuccessful efforts of the gut to overcome the obstruction.

We believe that the indiscriminate use of drastic cathartics, calomel particularly in large doses, post-operative, is many times partly responsible for illeus. The severe spastic contraction of the acutely inflamed gut against a band or adhesion which in many cases does not shut off the lumen of the gut completely and if not induced to the stage of excessive spastic contraction might in a short time by the normal passage of gas dilate of itself sufficiently.

Pathologically a dilated, distended, inflamed, edematous gut is present proximal to the obstructed area, gangrene frequently supervenes, the liver and pancreas on section show destruction of cells and various other changes due to the marked virulent toxin. This toxin originates in the mucosa of the affected intestinal loop and is bacterially variable. There is an increase of the chlorides with marked retention in most cases, elimination of all substances is markedly retarded. High blood urea, depressed functioning of kidneys and destruction of the renal tubules, the interference with pancreatic and duodenal ferments and the associated hepatic insufficiency result in the destruction of the liver cells and death.

Attempts to immunize animals have all proved futile although the toxic substances taken from the obstructed gut loop and injected into the blood stream of normal animals produces like symptoms, but once the lethal dose has been absorbed into the circulation there is at present no known means or method of saving life as the toxin has already combined with the liver cell.

Death results from loss of body fluids, toxemia from the absorption and pressure on the heart and lungs due to the marked distention which diminishes the capacity of the lungs and results in suboxidation.

The diagnosis in the dynamic or mechanical type, especially when following abdominal section within four to fifteen days post-operative is characterized by the symptoms of acute cramp like pains, persistent and paroxysmal. This spasmodic localized pain is very severe in nature and one requires little ob-

ervation to decide that the gut is endeavoring to force its contents by a band or kink. Muscular rigidity is marked, distention, vomiting and collapse follow rapidly. Later the acute spasmodic pain subsides somewhat and there occurs less of tonic muscular contraction of the intestinal wall with paresis, the severe paroxysmal pain is replaced by the general pain and tenderness of peritonitis.

In the diagnosis of the adynamic or non-mechanical type where there is little or no contractile power of the intestinal muscular coat, pain is more constant but not so severe, nor is cramp like or paroxysmal in character; the onset is more insidious and general distention is much more marked. Interference with the cardiac and respiratory functions is frequently the first symptom noticed accompanied by painful discomfort and oppression. Vomiting seems to appear later than in the mechanical type and the quantity is much larger. A history of obstinate constipation frequently precedes paralytic ileus, while in the dynamic type the intestinal tract has, as a rule, been acting normally before the attack, likewise the vomiting comes on early coincident with the paroxysmal pain in the dynamic. These are general observations gleaned out of several years of careful observation and of course may differ from the experience of others. Meteorism to an extreme degree and finally fecal vomiting with collapse, delirium, and death.

Often times marked meteorism is the only diagnostic sign in the paralytic type and persists for some time without any discoverable evidence of definite obstruction, however this extreme meteorism would of itself unaccompanied by marked pain or vomiting suggest the cause, especially when accompanied by a marked restlessness. The x-ray and barium meal in the acute case is mentioned only to be condemned as impractical of course.

Treatment of paralytic ileus depends largely upon the individual case. Eserin 1-50 gr. hypodermically every three hours with strychnia 1-30 gr. is helpful, pituitary ext. 1 c. c. or infundin in the same dosage and inserting colon tube clears up some milder cases quickly. Large dosage of atropine tends to allay intestinal spasm. Compound enemas; made and given properly will induce peristalsis in selected cases. Lavage is imperative in many cases and must be frequently repeated hypodermoclysis must supplement lavage on account of the excessive dehydration due to the exudation of large quantities of fluid into the obstructed bowel. Sodium bicarbonate or glucose and soda solution to prevent acidosis and the use of the duodenal tube, will if used in connection with proctoclysis, drop method, allowing the tube to remain in place

even for twelve to eighteen hours, be markedly beneficial. External heat and hot packs seem to be of value.

Electrical stimulation might be of some benefit in few mild cases of the adynamic affection but is of doubtful virtue in the acute mechanical type, but in all these cases if relief is not immediate or improvement marked, then simple enterostomy under local anesthesia of the most distended loop as suggested by Elsberg is most effectual.

Ether inhibits peristalsis and in acute obstruction the blood stream is constantly receiving more toxins; the drainage from enterostomy relieves distention at once and increases the capacity of the lungs by relieving the pressure thereby increasing the oxidation of the blood and other tissues.

Lumbar anesthesia should be a great aid in paralytic ileus because the paralysis of the nerves that inhibit normally peristalsis, under anesthesia cause an increase in peristalsis and when combined with a paralysis of the sphincter and as in lumbar anesthesia, it would be an immediate and marked relief from discomfort and distention.

In the dynamic or pure mechanical type, which has been mentioned before, is often due a constriction of the gut by a band or adhesion following a recent abdominal section, the diagnosis is as a rule so clear cut, the onset so sudden, that one will rarely err if we diagnose obstruction by a band.

These bands resulting from operative procedure are more dangerous because they are more circumscribed than those which arise spontaneously after inflammation or those of the embryonic type.

To my mind there is only one treatment for the dynamic type and there is no excuse for delay, the patient is desperately ill and no time must be lost. An immediate operation and it is a matter of only a few minutes to release a band which is best done through a separate incision after the fifth day post-operative, as the gut may be attached to the original opening. These cases are easy of recognition and should be operated early, if not seen till late then enterostomy only should be done and no attempt made to release the obstruction.

In volvulus or intussusception, resection may become imperative because of gangrene; operated early the necessity for such radical treatment is not so marked.

Drainage may avert some obstructions by preventing adhesions. We are inclined to believe, that at present the tendency is towards closing all abdominal cases when some should be drained, because after every aseptic operation, no matter how skillful or careful the surgeon, and this is especially true in acute

cases that require immediate intervention, there is already considerable inflammatory reaction with production of serum. This may be absorbed but consider how it must be cared for by the peritoneum when the belly is closed tight. Drainage for twenty-four to forty-eight hours will frequently astonish one by saturation of the dressings with serum and clinically while your patient may seemingly do as well or apparently even better we believe that the production of adhesions or obstructive bands is materially lessened by drainage in many acute and even some chronic cases.

It is hoped that more patient and careful observation will enable us to differentiate these two types clinically because the one if recognized immediately, and it should be, requires speedy treatment and if not delayed will not shorten the patient's convalescence very materially, if not recognized or if deliberately delayed it becomes a very grave proposition some times within a few hours and even if recovery ensues after treatment of necessity being very radical, the convalescence is naturally fraught with many complications.

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The Relation of the Health Officer to the Public and Practicing Physician

M. O. NYBERG, M.D.

Secretary State Board of Health

Read before, the Wilson County Medical Society, Dec. 19, 1923.

The prevention of disease has long been recognized as one of the duties of a Government. This duty largely devolves upon the several states, primarily, although the United States Public Health Service maintains a health service which deals with health problems over which individual states have no control. Nearly every state in the union has a health department to which various powers are given for the purpose of suppressing epidemics and dangerous communicable diseases. Cities also, as a rule, maintain a health department for the control of communicable diseases and for promoting sanitation in the cities.

The science of preventive medicine and public health has made such rapid strides in the last two or three decades that it far surpasses the science of curative medicine at the present time. Public health work in the past has been spectacular. It has dealt with widespread epidemics while the people were in a panic of fear and ready to accept any method that offered relief. It consisted in cleaning great collections of filth from streets, alleys and public places, in bringing supplies of pure water into cities and in constructing extensive sewerage systems, draining mosquito breeding places, and like procedures. Such meas-

ures as these have eradicated cholera and yellow fever from the United States, have reduced typhoid fever to one-tenth of its former prevalence and markedly reduced malaria and hook worm cases. The striking results obtained in the diseases mentioned lead people to believe that the removal of visible dirt would cut down all communicable diseases—but such is not the case. Such measures as above mentioned have had little or no effect upon diphtheria, scarlet fever, pneumonia and other contagious diseases. It is probable that the line of work aimed at the eradication of filth has reached its full development for we have already controlled diseases that are spread by gross filth. Civilized people now generally recognize private and municipal cleanliness to a degree that was advocated by only a few of the leading sanitarians twenty years ago. Most people in the civilized world today who are of normal mentality no longer tolerate gross filth and filthy living conditions. The modern health officer has other problems toward which he must direct his attention. He no longer devotes his entire time to garbage disposal, sewerage disposal and filth-borne diseases, but to persons whom he knows are producing disease causing germs within their bodies and to animals of like character. Individuals who are disease carriers are the real menace to the health of the public. It is toward these individuals the health officer directs his efforts. A diphtheria carrier or a typhoid carrier or an individual affected with gonorrhoea or syphilis does not appeal to the public so much as a pile of manure or a well developed case of smallpox. The individuals who are carriers are apparently well, able to eat and perform normally. It seems to the public that carriers who are quarantined as such by the health officer are being persecuted and that the health officer is talking about danger when there is none. Even the family physician may become sympathetic and re-act contrary to his better judgment. The public likes to see phenomenal things in order to believe. Even then many are skeptical. You will pardon a personal incidence which will serve to illustrate the point I have in mind more vividly. A case of diphtheria occurred in school, the patient being discovered by a visiting nurse. The patient was cultured by the nurse, temperature taken, pulse noted, after which the patient was sent home; culture for diphtheria proved positive. The patient was quarantined and the pupils in the room where the diphtheria patient had been were cultured. Two positive cultures were found. Both were isolated. One of the carriers was a boy twelve years old. His family were highly indignant at being quarantined when their boy was perfectly well.

They stated that there was not a thing the matter with him and that he should be in school. Eventually two negative cultures were obtained from this boy. He was allowed to return to school. Some time later I was called early one morning about 5:00 a. m. by an undertaker and was asked to come to the morgue, as they had a case which had died under suspicious circumstances. I was surprised to learn upon my arrival at the morgue that the deceased was the boy whom I had previously had in quarantine as a diphtheria carrier. Superficial examination of the deceased revealed swelling in the neighborhood of the tonsils and that the lymphatic glands of the neck were enlarged. In each nostril diphtheric membrane was found. Cultures were made from each nostril and slides were made from each nostril also for direct examination. Aspiration from the throat of the deceased by means of a syringe and rubber catheter secured some exudate from which cultures were made as well as direct smears. Examination of the slides with a microscope revealed myriads of diphtheria bacilli. Following incubation of the cultures, examination for diphtheria bacilli was made. All were positive. I secured the following history from the doctor who had been in attendance upon this case: The boy had been ill of a sore throat for a few days. The doctor was called and discovered a patch the size of a dime on one tonsil. The doctor suspected diphtheria but knowing the attitude of the family toward the health officer when he had previously quarantined the boy as a diphtheria carrier, he diagnosed the case as tonsillitis. No cultures were made of the child's throat. When the doctor visited the patient the next day the patch on the tonsil had disappeared but the patient was somewhat croopy. There was only a slight elevation of temperature and the doctor decided to call the disturbed respiration asthma. However, the doctor felt a little bit guilty. The patient seemed fairly well during the day time and was up and about but at night labored respiration kept the father and mother awake. On the third night about 2 a. m. the father and mother in an adjoining room noted that the labored breathing of their little son had ceased. They were very glad that the little fellow was better but, nevertheless, were somewhat uneasy and, after a little while, ventured in to see how the little fellow was resting only to find him dead. Those people are still full of remorse and the doctor cursed the day that he was born when he told me the history of the case. The little boy was sacrificed because there was prejudice against the health officer's theory of diphtheria carriers. It sometimes takes a thunderbolt to waken the public. Very often didactic

methods of education of the public are unsuccessful and an object lesson is required to produce the desired results.

We know that vaccination against smallpox when carried out systematically is a sure preventive against that disease but you would be surprised at the number of people who will tell you that they know that it is all very silly and a very dangerous procedure to be vaccinated against smallpox, although vaccination has been proven to prevent smallpox for over a century. When a health officer advises a community to be vaccinated against smallpox in the absence of an epidemic of the disease the public considers the health officer is unnecessarily alarmed, crazy, or drumming up business for the medical profession. The same holds true for typhoid fever and diphtheria. A community as a rule is slow to take warning from the experience of a village ten miles away and its people are usually convinced only by a disastrous epidemic in their own midst.

Public health work in its modern phases is so new that we can hardly expect it to be generally accepted at the present time as it usually takes about a generation for the knowledge of medical practice to become common knowledge. However, it is encouraging to note that the thinking people of the land are rapidly falling into line in the public health movement. Life insurance companies find that it pays to educate their policy holders along the lines of public health. There are some very recent monthly publications on public health, among them, "The Nation's Health," and "Hygeia," the latter printed by our own American Medical Association and intended for the laity. The education of the public as regards the science of public health is one of the important offices of the health officer. Unless the public knows and understands the whys and wherefores of public health the health officer will be handicapped extremely and he will not obtain success in his public health undertaking. The health officer can educate the people whom he serves by taking pains to explain what he wants done in each and every case and his reasons for doing it. The modern health officer, while empowered with extraordinary police power, nevertheless, finds it is not necessary to exercise his power of police, only in extreme cases. The health officer has at his hand educational literature, moving picture films which pertain to sanitation and hygiene, and if he is wide-awake, he will give public lectures on health subjects for the benefit of those whom he serves. In this way he educates his community and secures their co-operation, without which he cannot hope to succeed. The personality of the health officer has much to do

with his success in a community. In addition to being an expert in preventive medicine the health officer must know much of psychology and know how to handle people. A pleasing personality is always acceptable to normal individuals. However, there are occasions when it is necessary to assume a matter-of-fact and often stern attitude toward some violators. An efficient health officer will confine himself with a singleness of purpose to the matter at hand and should not be sidetracked by personalities.

Some people consider the health officer to be a trouble maker and an enemy. The public will be likely to hold this opinion, and justly so, if the health officer does only police duty and confines his work to repressive measures. The public will look upon the health officer as a friend and benefactor when he does constructive work. Not infrequently the people of a community are of the opinion that a health officer has an easy job and so they are willing that the office should be given as a reward for political work. If the health activities in a community are confined to police work which a constable can do, then they are justified in their low opinion of the office.

People in rural communities hardly know what kind of health work to demand of their health officer or how much to pay him. The health officer can enlighten them if he keeps a record of his work and the time spent in doing it. A good health officer is public spirited and will do efficient work regardless of salary. The people will usually grant him adequate pay when his reports show that it is justified.

The first steps in public health is to do good work and the second is to make his work known by reports, lectures and articles in local newspapers. This is legitimate advertising which promotes public health work and makes it known to the public. The people have much to do with making the work of a health officer a success. The greatest source of a health officer's power is not in his police power, but in favorable public sentiment. I will conclude my paper with a few remarks relative to the physician and health officer.

Public opinion concerning the physician is still very high, regardless of the constant train of cults which mingle with us and are everywhere about us. Christian Scientist, Chiropractors, and followers of Abram's cult loom bright on the horizon at times, but when public opinion takes their full measure, they are found sadly wanting.

Every true physician is a guardian of public health and the people expect him to be interested in medical matters which pertain to public health. The opportunities and in-

fluence of the physician as an educator are greater than those of almost any other person. Nearly every person has explicit confidence in the word of some physician and the attitude of the people toward public health matters is the composite attitude of the physicians in the community. There are few medical schools that give careful training in preventive medicine, so we can hardly expect the general practicing physician to be a specialist in public health and preventive medicine. Very largely the leaders in public health have gleaned their knowledge from the grim school of experience. These leaders have been free to give the results of their experience and their expert knowledge to the public. It is now necessary for the general practitioner to know much of preventive medicine because his clients demand it.

It is a fact that physicians are often inclined to shirk public health work. They say that the people do not appreciate the work of a health officer: that many persons resent interference with personal liberties; that public health workers make enemies and that a physician who practices preventive medicine soon loses some of his private patients. Most physicians have to devote their time to work which pays them financial return in order to live and it is often difficult to secure the services of competent, well trained men to take charge of local health work. Very often a local health officer receives a pittance from his local board of health. A health officer cannot be expected to perform the many and sundry duties expected of him for a song. I know of one county health officer in Kansas who receives \$20 per year for services rendered the county as health officer. It is a disgraceful thing, but true.

The field of preventive medicine is growing very rapidly. It should be the duty of every true physician to take more interest in local health conditions. Some physicians consider that they are under no obligation to practice preventive medicine. They say that they are paid to treat the sick and not to do the work of a health officer by placing restrictions upon a family. Those who employ a physician have a right to expect that he will advise them how they may recover from an illness and also how they may prevent the disease from developing again in the future and how to prevent further spread among others in the neighborhood. The state law requires not only physicians, but householders and others knowing of dangerous communicable diseases to report same to the local health authorities.

Very often physicians are censored by patients suffering from dangerous communicable diseases because they have properly quar-

antined the case. Some few physicians hide their contagious cases but it is only for a short time for sooner or later it all comes out, and the physician is usually the loser.

The attitude of physicians toward reporting contagious cases and suspected contagious cases depends also upon the health officer. If the health officer is a political appointee and is not worth a "tinker's dam"—as regards his qualifications for the office, physicians will naturally have no confidence in him, but if the health officer is efficient, an expert in the diagnosis of communicable diseases and is trustworthy and diplomatic, the physicians will have confidence in him and will gladly co-operate with him.

Physicians are entitled to the protection and support of the health officer in performing the unpleasant duty of giving the public the benefit of the doubt in suspicious cases and in making a decision which involves the curtailment of an individual's personal liberties.

The local physicians form the first line of defense against communicable diseases and the efficiency of that defense depends upon the alertness and willingness to co-operate with the health authorities. When a health officer is obviously not an expert diagnostician and does not enjoy the confidence of his medical brethren, the physicians have a large measure of excuse for failure to report cases on suspicion. Local physicians have a specific duty which they should perform; namely, advising the local board of health as to the qualifications of a prospective health officer. If the local medical society would endorse someone to the County Commissioners it would facilitate better health conditions in every community. The local medical society usually know who among them is best fitted for the position as local health officer, and their choice should be that of the local board of County Commissioners, who as a rule know little enough of public health matters. There are certain laws, rules and regulations existent in the state of Kansas which, if followed, would improve local conditions throughout the state. While it is the duty of the physician to advise a family regarding the proper measures of preventing the spread of diseases, the enforcement of the measures upon unwilling persons is the duty of the health officer. It is the duty of the physician to inform the health officer regarding violations of preventive measures and to give him entire control of isolation and disinfection when the violations are repeated and serious. Instituting quarantines, directing isolations and disinfecting and discharging cases of communicable disease and pronouncing them free from infectiousness, are all

official duties which devolve primarily upon the health officer and it would seem proper to require the health officer to visit every case of communicable disease in order to advise concerning isolation, disinfection, etc., and give a certificate of discharge from quarantine at the termination of the quarantine period. The ideal way is of course when the health officer and physician work in close co-operation in all of these matters. In closing let me say that the ideal health officers are few and far between. Your local medical society can have much to do in securing the proper health protection which your community deserves.

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The Family Physician and Certain Preventive Disease Measures

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Commissioner of Health and Sanitation, Kansas City, Kansas

Read before the Wyandotte County Medical Society, December, 1923.

It is my intention in this paper to discuss certain preventive disease measures as carried out by the family physician, but briefly.

DIPHTHERIA

Because so many problems in the control of diphtheria have been worked out successfully, let us consider this disease first. We know more about diphtheria, scientifically, than any other preventable disease, therefore the knowledge of this disease will be used more or less as a standard in the future—in working out the solution of the problems connected with such diseases as measles, chicken pox, scarlet fever and possibly influenza.

From a scientific point of view, we know the organism that causes diphtheria; we can isolate it; we can transplant it; we can grow it in the laboratory; we can produce the disease experimentally; we can separate the toxin from the organisms, and produce experimentally the "toxic" effect of the disease; we can diagnose it in the laboratory; we can detect "carriers"; we can determine if a person has an immunity to diphtheria by the Schick test; and if they have not, we can give them an active immunity over a period of years by the use of toxin-antitoxin; and if a person develops diphtheria, we have a scientifically correct treatment in antitoxin. In other words, the physicians armamentarium for the control of diphtheria is practically complete. The question immediately arises, then, why do we still have diphtheria? I will not attempt to answer that question completely but in part only. I believe that the first reason for that failure, is the lack of education of the public, as to the needs of preventing diphtheria; and that it can be positively prevented. The second reason for the lack of prevention of diph-

theria, is due to the fact, that a great many physicians are not urging their families to protect themselves. In checking up on the sales and distribution of material for Schick tests, and on toxin-antitoxin, I find that very little is being used in this section of the country, as compared with the east, where some communities have a very large percentage of their school population protected against diphtheria. Possibly New York City, where health education among the laity has made such progress, leads in this matter. They claim that about 80 to 85 per cent of the school population is protected. In other words, they are as well protected against diphtheria, as we are against smallpox. My plea is for the more universal use of toxin-antitoxin.

There are certain problems, or questions, that sometimes come up in controlling diphtheria, that I would like to discuss. At times a doctor gives his patient antitoxin, and will also do that which is indicated, namely, give the rest of the family antitoxin. Sometimes he will then state that the rest of the family can be released from quarantine, because they have had antitoxin, and therefore will not contract the disease. If one considers a moment, one would realize, that the antitoxin does not kill the organisms, and that the contacts may still transmit the disease, until it is proven that the organisms are not in the nose and throat, therefore, the only way to release contacts is by cultures.

In isolating carriers, the question often arises, whether or not the carrier should receive antitoxin. We have sometimes been asked to release carriers just because they have received antitoxin. While one could not say that antitoxin was contraindicated in case of carriers, one would not hesitate to state that it is not indicated, because, obviously the carrier has an active immunity against diphtheria, otherwise he would have clinical symptoms, instead of being just a carrier. In consideration of carriers one has to keep in mind, that at times, it is necessary to run a virulence test, using animal inoculation to determine, if the organisms, which morphologically appear to be capable of producing toxin, really do so.

When producing an immunity against diphtheria with toxin-antitoxin, one can feel safe in assuming that the immunity will last for several years, but one must keep in mind that the passive immunity produced by antitoxin is quite short, probably not more than thirty days, (most authorities give ten days to three weeks). It is also well to keep in mind that one attack of diphtheria does not produce an immunity to further attacks. It should be put in a class, more or less, with pneumonia

in this regard. I have in mind a recent case, which we were called upon to put into quarantine for diphtheria the second time. The mother of the patient objected very strenuously because the child had had diphtheria just one year previously, the attending physician had given antitoxin, and had promised the family that the child would never need it again.

The question of giving toxin-antitoxin to contacts has been sometimes asked. Toxin-antitoxin does not give immunity until several weeks, (usually six to twelve weeks), after the first dose is given, so that the contacts to a case of diphtheria should receive antitoxin. It is sometimes advisable however, especially in children's institutions to Schick test all the children over six years old when one child takes down with diphtheria. Antitoxin is given only to those, who have no immunity. This cuts down the expense of antitoxin; it avoids giving one child antitoxin, who does not need it; and it also avoids sensitizing some children, who probably will need more antitoxin in a few days. Because of the high percentage of children who lack immunity between ten months and six years, the Schick test is not considered necessary in this age group.

It might be well to call to your attention, the fact that the Kansas State Board of Health's recent ruling requires all diphtheria patients to be in quarantine two weeks regardless of negative cultures early in the disease. It also requires that two cultures must be negative taken at least forty-eight hours apart, before the case is released. We are therefore taking the first culture on the eleventh day, if it is negative, the second on the thirteenth day, and if it is negative, we release on the fourteenth day.

SMALL POX

Let us next discuss smallpox, a disease about which so little scientifically is known. Here the public health problem is answered in one word—vaccination. Unfortunately, it is not nearly as easy to carry this out, as it is to tell about it, especially in the middle west, where compulsory vaccination is not in vogue.

Although vaccination has been employed constantly for 125 years, still the manner of vaccination, and the technique followed vary greatly. I desire to describe briefly the technique used by Dr. J. R. Leake of the United States Public Health Service, when he was assigned here during our epidemic of 1921.

The first point which he emphasizes is the use of good active vaccine. He requires, that all the vaccine be kept on ice, not just merely in the ice box. The site of vaccination is cleaned thoroughly with antiseptic soap and water; alcohol followed with ether may be

used. A single scratch not more than one-eighth inch long is made. It is desirable not to draw blood if possible. The virus is then put on the scratch and thoroughly worked into the skin with the scarifier, all the time trying to avoid any bleeding. The virus is then allowed to dry and no dressing whatever is applied. Another site about two inches from the first should be treated the same way, except that no virus is used. This is used as a control.

Beyond doubt the worst dressing, which can be used is the celluloid shield. The United States Public Health Service strongly recommends against it, in fact, they are trying to stop the manufacture of shields by prohibiting their interstate shipment. The majority of the painful, badly swollen arms during the last vaccination campaign were caused by shields. He states that the number of infections in the site of vaccination bears an exact ratio to the size of the vaccination and that a scratch of approximately one inch in length is inexcusable with our present day knowledge. In making vaccinations, one must keep in mind the possibility of tetanus infections. We had two deaths in this city from tetanus following vaccinations two years ago. After a thorough investigation, co-operating with the attending physicians, we were unable to determine the cause of either infection.

We sometimes hear that a vaccination protects for life, but a study of cases will soon reveal the fact that this does not hold good. Of the 22,944 cases of smallpox in the United States in 1921, where a definite vaccination history was given, 63.5 per cent had never been successfully vaccinated; 4.6 per cent had been vaccinated more than seven years; 1.8 per cent had been vaccinated within seven years of the attack; and in 30.1 per cent of the cases the vaccination status was not obtained or was uncertain. From this report, one is surely justified in recommending a general vaccination, at least every seven years; and in case of intimate contact, especially with the virulent type of smallpox, a more frequent vaccination.

A procedure which I wish to describe and call to your careful attention is the local reaction following vaccination. This well known phenomenon was observed, at least in part, by Jenner, and studied extensively by Pirquet. With standard technique and proper virus, it is possible with this reaction to read the degree of immunity to smallpox possessed by the individual vaccinated. "The local disturbance or reaction following vaccination," writes Dr. S. B. Griggs, of the United States Public Health Service, "may appear within a few hours or not for several days. In gen-

eral terms, the time of its appearance measures the person's resistance to smallpox; i. e., the earlier the reaction, the greater the immunity. The early reactions are, as a rule slight, and the later reactions are more severe. Thus, persons previously unvaccinated will usually show no disturbance for three days or even longer, but the reaction will then go to a successful take. For purposes of record, three degrees of reaction are recognized, namely, immune reaction, vaccinoid and successful vaccination. No hard and fast line can be drawn, although we usually say that an immune reaction must appear before 48 hours."

As soon as we know that a person is immune, we should release him entirely, and not require him to be vaccinated several times to see if he will get a take. We should use vaccination, not only to produce immunity, but also to measure it.

We may define the three classes of reaction as follows:

1. Immune reaction. Where the immunity of an individual is high, either from a previous vaccination or from an attack of smallpox, a subsequent attempt at vaccination usually results in a prompt sharp reaction which reaches its maximum in about 48 hours and may entirely disappear within four days. There is redness and swelling around the incision, which received the vaccine, as compared with the control. Vesicles rarely occur.

2. Vaccinoid (accelerated and modified vaccination), appears after 48 hours. The papule occurs after two, but frequently before five days have elapsed. The reaction is less severe and takes less time to run its course than a typical take. Vesicles frequent; pustules not always present.

3. Successful vaccination. No reaction shown for three to five days. Vesiculation from fifth to seventh day with areola present; purulent, with well marked areola about the eighth day.

We can save our patients considerable time, and inconvenience, if we pay close attention to the reaction following vaccination. As a society, we should urge that it be made compulsory to be vaccinated before entering school. Those of us who have industrial connections, should urge, that the firms, or plants, for which we are medical advisors, or examiners, require everyone to be vaccinated, before they are employed. This protects the employer from any disruption in his place of business in case of a smallpox epidemic.

Smallpox is showing an increase in the United States in the last few years. Apparently the public has to be educated to the need of vaccination about every so often. We

VENEREAL DISEASES

lems, and are at all times taking the attitude of being entirely ethical, they do not diagnose, nor do they prescribe, although the parents, and sometimes the teachers, cannot see why they don't. They often send children home for a suspected disease, and suggest, or sometimes require, that the family physician be consulted before the child is returned to school. One can readily see that the closest co-operation in this work will be to the interest of all concerned, and I believe that the thoughtful physician will give the nurse every consideration, if her suspicions were not correct. The statement has been made that children are forced by law to go to school,

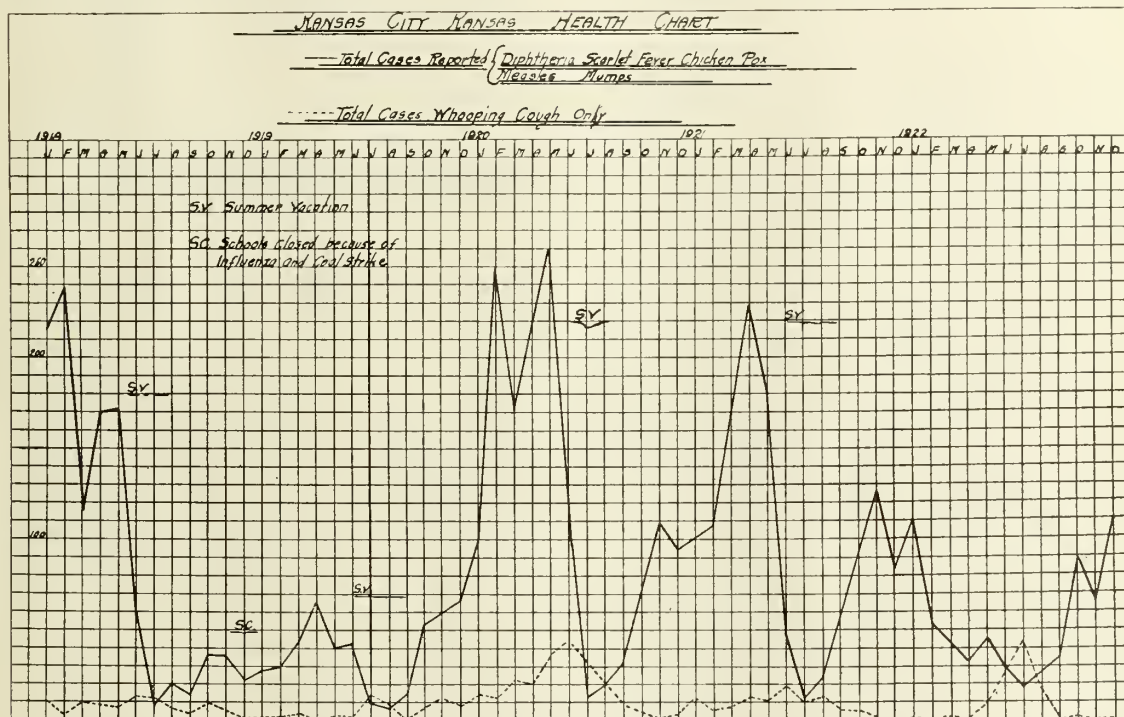


CHART No. 3

MEDICAL SUPERVISION OF SCHOOL CHILDREN

therefore the law should provide health protection. I believe that there is a good deal of truth in that statement.

Every physician knows, that we have more contagious diseases in the winter than in the summer. Some have blamed this onto the weather, stating that in the winter the houses are closed up, public buildings are poorly ventilated, and we live a more indoor life. I have made two charts based on the figures in Kansas City to show that contact in the school room must be considered as the most important factor in causing an increase of our contagious diseases each winter.

In chart No. 3, the solid line indicates the total number of cases reported from diphtheria, scarlet fever, chicken pox, measles and mumps. A glance at this curve will show,

that the total number of cases does not vary as the weather. If it did we should have our peak along about January or February allowing time for the incubation period. The curve shows a marked drop each year at S. V., that is the summer vacation. I would like to call your attention to the curve for 1919. January of that year the schools were closed, because of the coal strike; in the preceding December, the schools were closed because of the influenza epidemic. It is very evident that the peak for that year is very much smaller than for the other years. I realize that the influenza epidemic seemed to "crowd out" other contagious diseases; and that may have been a factor in holding down the peak.

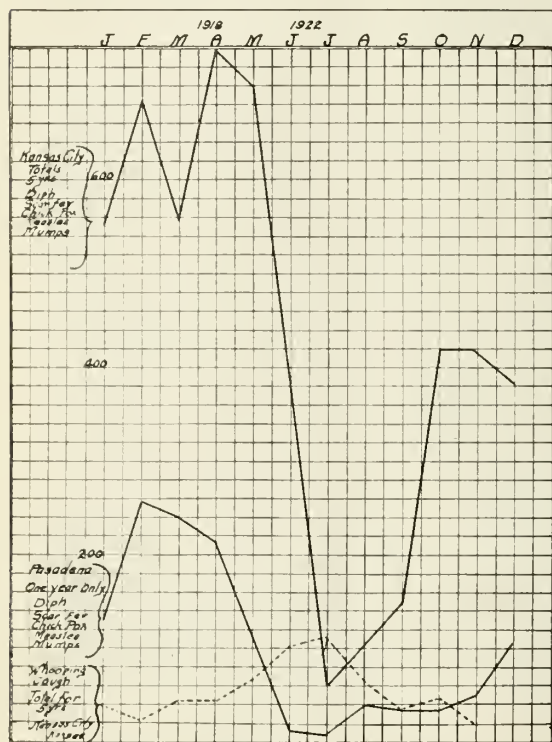


CHART No. 4

Nevertheless, the curve shows a much closer relation to the time that the schools were closed, than it does to the influenza epidemic.

As whooping cough is mainly a pre-school age disease, I have plotted the total number of cases of that disease on the same chart. If all contagious diseases bore a definite relation to the weather, we would expect the curve for whooping cough to be very similar to that of these other five diseases. Undoubtedly the diseases of the respiratory tract are more prevalent in the winter and because of that fact we might conclude that whooping cough would be more prevalent at that time. But in actual fact just the opposite is true. The

mid-winter months are the months in which whooping cough is the lowest and in the summer months it is the highest. A study of the curve will show, that the curve of whooping cough crossed the curve of the total of the other five diseases every summer, except one. I have no explanation to offer to account for this other than contact.

In chart No. 4, I have combined the totals for each month over the five year period and have made a composite curve. This shows very clearly the contrast in the curve for the five diseases chosen as compared with whooping cough, a pre-school age disease. Pasadena, California, is a city which has a much more even temperature the year around than we have. It is reported that it never freezes there. The figures by months for the same five diseases, which I have plotted were available to me for one year only, so I have plotted them on this same curve. It will be noted that the curve of Pasadena shows the same general contour as that of Kansas City, Kansas.

Of course, contagious disease work, is only a small portion of the school medical inspectors work, but I believe with the evidence that contact plays such an important part in the spread of disease, we should insist that the children, who are forced to attend school, are given the best protection, which medical science has to offer. It is our duty to see that the medical profession advances as far as the dental profession has in our state by getting a bill passed allowing cities and counties to provide for medical inspection, then the nurse can do follow-up work, and she will be in the position that she now desires to be.

Chart No. 5, shows the improvement in our death rate. The dot-dash line showing the downward trend of this death rate exclusive of the influenza epidemic. The two columns to the right show the improvement of the last five year period, including the influenza epidemic over the five year period of 1909 to 1913, inclusive.

It is encouraging to note that our crude death rate puts us near the upper half of the cities while our cost per capita is near the bottom of the lower half. I believe that this shows at least that money is not being squandered on health matters in our city.

There is a question that sometimes comes up about the filling out of the death certificate, as to the primary and secondary cause of death, as for instance, in the case, where a child took down with measles, later developed pneumonia, and then died. Some will state that the primary cause of death is pneumonia; because, if the child had not developed pneumonia, he would not have died.

This is not correct, however. The primary cause of death is the first as to time, as defined by those who compile statistics. It is also easier to enforce the funeral regulations if the certificate is properly made out, because sometimes an undertaker will come to the department asking for a public funeral, because the certificate states that the primary cause of death is pneumonia, for instance; and the contagious disease is given as the secondary cause.

I hope that you will excuse the outline followed by this paper. I have used very scat-

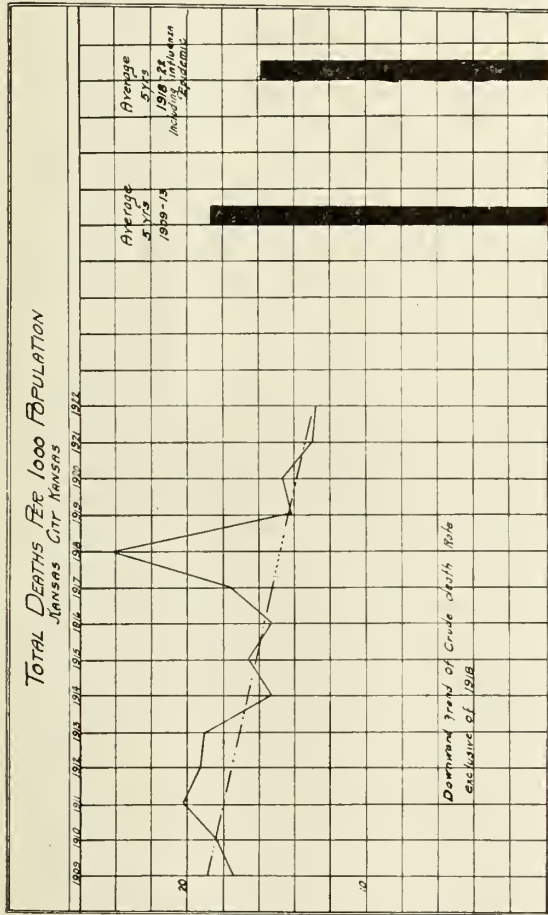


CHART No. 5

tered material with the idea of discussing some of the preventive medicine measures which appear most important to me in my public health work.

—R—

Psychical influences favor digestion, favorably or unfavorably. Hence the appearance of the food as well as the kind of food had to do in stimulating digestion.

Moral. A good cook is not only an artist but a decorator in the preparation and presentation of food.

The Doctor Tries Green Fields

RENNIG ADE

The Doctor had fought snowdrifts and 10-below temperature the past 48 hours, with little sleep, and not being so young as he once was, felt the reaction rather keenly.

He drowsily slumped down in his office chair, and fell to introspecting.

Be it known that this is a dangerous diversion for anyone of limited income. 'Tis then the glaring discomforts of daily life magnify themselves and create a feeling of discontent that only the rush of business can remove.

As the Doctor vacantly stared, and absently drew patterns with his index finger on the vaseline-coated speculum that the office flapper had neglected to remove, he visualized the green fields far away where the practice of medicine is a continual round of pleasure.

He saw magnificent boulevards lined by orange and lemon trees. Brilliant sunshine, fragrant flowers, beautiful movie actresses, cool ocean breezes, and rich rare wines, each in turn occupied the center of the stage of his imagination.

He saw millionaire patients trundling up to his office in luxurious cars, and the white-clothed office attendant making an appointment for two weeks from Wednesday.

A grateful patient of opulence had just handed him a fee of one thousand dollars (\$1,000.00) to secure his service for his daughter, who was contemplating having a disfiguring mole removed from her McBurney region. The Doctor protested a little at this, and even mentioned that back in Kansas he had charged only two dollars for this operation. Nevertheless he pocketed the check, making a mental reservation to get himself a new golf ball, and salt the rest away.

The Doctor then ran his eye over the waiting list of patients, selected a bank president, beckoned him in, and coolly inquired the symptoms. The banker stood nervously twisting his hat, plainly embarrassed in the presence of so noted an authority. The Doctor inwardly smiled as he recalled the day when he had held these individuals in dread and awe, when he had humbly requested the loan of a few hundred as first payment on a flivver. He had seldom been refused, it is true, but the repayment of these obligations necessitated many days of self-denial.

But these were days of long ago back in Kansas. Now it was different. He listened politely to the banker's recital of physical infirmities. Nor did he feel any violation of his Hippocratic conscience when he told the patient he would take his case for \$50,000, terms half down and the balance in ten minutes.

The rich banker eagerly accepted the proffered terms, and gratefully received the handful of Hinkle's Pills that the Doctor carelessly handed him.

Leaving the remaining patients to be attended by his assistant, the Doctor stepped into his limousine, crisply saying "Hollywood" to the liveried Jap who respectfully stood with uncovered head holding the door open.

He found his patient, a beautiful actress, convalescent and able to sit up and drink her gin highballs as the Doctor had recommended. She playfully kicked the Doctor's hat off, and to save his life he couldn't feel properly horrified. However, business being the paramount issue, he took the patient's blood-pressure, and carefully went over the lungs, making sure that no sub-crepitan murmurs should escape the trusty ear. In this he was somewhat hindered by the patient, who insisted on tickling his nose at frequent intervals. The examination over, and promising to call again the following morning, the Doctor took his departure, dodging a slipper as he backed through the door.

Mentally deciding that a doctor must often take his life in his hands in the pursuit of his calling, the Doctor is then whisked through beautiful suburban streets to the country club, where he is slated for a foursome with a senator, a sugar millionaire, and a retired Ford manufacturer.

The stakes being one thousand dollars on each hole, the Doctor plays carefully. He finds great difficulty, however, in grasping his clubs with sufficient firmness. A midiron turns abruptly in his hands, and the ball is knocked at right-angles into the conservatory, breaking a stained-glass window and narrowly missing a beautiful young lady, who at first appears very indignant but on recognizing the Doctor smiles sweetly. The club drops from his hands, striking the gravel with a distinct metallic rattle. The Doctor looks at his hands—they are covered with a sticky substance resembling and smelling like carbolyzed vaseline. No wonder he can't hold the midiron. He reaches down to pick up the club—it has changed in appearance and is a bivalve-shaped affair curiously resembling a speckum. He feels a touch on his arm, and turns his head—

A freckled barefoot boy stands at his elbow.

"Soon's you git done your nap, Doc, maw wants some more of them powders for pukin and purgin."

The Doctor slowly dragged himself from his chair, put up some of the highly potent medicine, inquired solicitously concerning the messenger's sore toe which was wrapped

with a piece of bandana handkerchief, and grinned sheepishly at his wife who appeared in the doorway. She remarked:

"You look tired, dear—how are you feeling?"

"Much better," the Doctor answered, "I think my California trip did me a lot of good."

R

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Ralph H. Major, M.D.

Department of Medicine

INFECTIOUS MONONUCLEOSIS

The patient whom we have today, is an example of a very interesting disease. Without careful study of this patient, I feel sure the diagnosis would have been completely missed. It is an interesting demonstration of proper correlation between the bedside and the laboratory. Neither could have made the diagnosis without assistance from the other.

This patient is a boy 15 years of age, who entered the hospital complaining of weakness and fever in the evening.

Family History: This is essentially negative. There is no history of tuberculosis. No history of any similar illness in the family.

Present History: This is also negative. There has been no history of any severe illness, except an attack of rheumatic fever at 10 years of age. No history of any respiratory disease. The patient has never had typhoid fever or malaria.

Present Illness: About three weeks ago, while the patient was playing football he became very dizzy and weak, had some nausea and vomited. He went to his home where he was able to be up and around, but did not regain his strength. One week after the onset, he began to have fever, slight chills and sweats almost every night. He was first seen in the Out-Patient Department, where his mother was told to take his temperature for two days and then return with him. When she returned, a record of his temperature showed an elevation on both nights to 103°F.

Physical Examination: The physical examination of this patient shows him to be very large for his age, being 5 feet 11 inches in height, and weighing 130 pounds. The eyes, ears, and nose show no abnormalities. The pharynx is slightly injected and there is some collection of muco purulent material on the surface. The anterior and posterior cervical glands and the axillary and inguinal glands are enlarged. The lungs are clear on percussion and auscultation. The heart is not enlarged and the sounds are perfectly clear. The pulse rate is 88 per minute, the blood pressure is 105 systolic, 44 diastolic.

Examination of the abdomen is negative except for the presence of an enlarged spleen, which reaches one finger's breadth below the left costal margin. The spleen shows a smooth sharp edge but is not particularly firm or hard. The extremities are negative. The reflexes are normal.

A summary of the physical examination shows that the essential features are a slight pharyngitis, enlargement of the cervical, axillary, and inguinal lymph glands, and enlargement of the spleen.

This patient's temperature on admission at noon was 98°F. but gradually rose during the afternoon, reaching 102.6°F at 11:30 p. m. The following morning the temperature was again normal but rose the next evening at 8 o'clock to 101.4°F.

Examination of the urine was negative for albumen and sugar. The blood examination showed R. B. C. 4,200,000, W. B. C. 7,680, hemoglobin 85 per cent.

The diagnosis of this condition at first was not clear. Here is a patient showing an elevation of temperature at night, with an enlargement of the spleen and no leukocytosis. Several possibilities immediately suggested themselves.

Typhoid fever sometimes shows a temperature chart such as this patient presents, but it is not the usual or characteristic fever curve for typhoid. A leukopenia and enlargement of the spleen favors typhoid fever. This patient, however, does not look typhoidal, as he is entirely too bright and mentally alert. On the other hand, such a generalized enlargement of the lymph glands is not part of the picture of typhoid. A blood culture has been made of this patient, with negative results.

Syphilis sometimes produces a similar picture, and must be excluded in the differential diagnosis. There is no history or signs of any infection, and furthermore the Wassermann reaction is quite negative.

Malaria must be considered. The temperature chart, however, is just a bit unusual for malaria, unless we were dealing with the double tertian. The temperature peaks however, are not as sharp as we usually see in malaria. This patient's blood has been examined very carefully by several observers and no malarial parasites found.

Tuberculosis might also come in for consideration. The physical examination, however, gives no suggestion of disease of the lungs and the skiagraph of the chest shows no definite tubercular lesions.

The cue to the diagnosis here is given by the results of the differential count, which showed:

Polymorphonuclear neutrophiles, 38%
Polymorphonuclear eosinophiles, 1%.

Small mononuclears, 46%.

Large mononuclears, 14%.

A striking feature of this differential count is the great predominance of lymphocytic elements. A similar blood picture is occasionally seen in leukemia, but in leukemia we usually see a marked secondary anemia. This disease, however, can be excluded here I think, because of the clinical course.

This boy is a very classical example of infectious mononucleosis, a disease described in 1889 by Pfeiffer, who noted it first in children, and gave it the name of glandular fever. It was subsequently described by Korsakoff, Jones, West, and others. Recently, several articles have appeared by Sprunt and Evans, by Longcope, and by Downey and McKinlay. The essential features of this illness show it to be a febrile disease lasting from nine to twenty-nine days, accompanied by enlargement of the lymph nodes and frequently enlargement of the spleen. Examination of the blood shows the presence of a marked lymphocytosis, making the blood picture resemble closely an acute leukemia. Some of these patients have a leukocytosis, others have a leukopenia. The disease is of comparatively short duration, and recovery is the rule.

This disease has been mistaken for tuberculosis, typhoid fever, Hodgkin's disease, leukemia and syphilis. There is no evidence to show that it is related in any way to any of these diseases. The absence of anemia in infectious mononucleosis is very striking.

This patient was in the hospital for ten days, his temperature falling to normal in four days and remained so until his discharge. The enlargement of the lymph glands and of the spleen became less marked but was still present to some degree when the patient was discharged from the hospital.

This patient was seen in the Out-Patient Department one week later. At this time the spleen was no longer palpable and the lymph glands were much reduced in size.

The blood examination showed:

W. B. C. 8,750
Polymorphonuclear neutrophiles... 52%
Polymorphonuclear eosinophiles... 08%
Small mononuclears... 37%
Large mononuclears... 8%

As compared with the previous differential count we note that the neutrophiles have increased from 38% to 52%, while the mononuclears have fallen from 60% to 45%.

At this time the patient was feeling perfectly well and said he had been playing basketball and football during the past week.

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Lawrence P. Engel, M.D.

INFECTIONS OF THE UPPER LIP

Occasionally small, superficial and apparently insignificant infections of the upper lip progress rapidly to a fatal termination and for that reason the greatest care should be exercised in the early treatment of such infections no matter how innocent they may appear. The staphylococcus aureus is the causative organism in the vast majority of cases. The staphylococcus albus, the streptococcus and the pneumococcus have been reported in a few instances. As we all know, staphylococcal infections of the upper lip are very common and usually clear up after only the very slightest local reaction. Why then should a few progress violently when the onset is practically the same in all cases? Walton Martin in a report of 10 such cases asks the question: "Why have we 5 deaths in 80 carbuncles of the back of the neck, many of these in the old, enfeebled and often diabetic and 7 deaths in 10 patients with carbuncle of the lip all but one below forty-five years of age?" One theory is that the invading staphylococcus in the fatal cases is of a more virulent strain but this has been disproved. In those on the back of the neck the local process is more extensive; still the prognosis is vastly better.

The seriousness of infections of the upper lip is due to its anatomic structure, with the rich venous drainage leading directly into the large venous channels. The skin of the lip is very adherent to the underlying muscles, the fibers of which insert directly into the skin. There is a rich venous plexus in the upper lip, one portion being superficial and one lying deeper beneath the muscles. This is called the labial plexus and usually receives two slender branches from the outer corners of the lower lip. The blood is collected from this plexus and ascends along the side of the nose to empty into the facial vein which through the angular vein at the inner corner of the eye anastomoses with the ophthalmic vein and thus with the cavernous sinus. There are usually two small branches from the lower lip which empty directly into the facial vein in the submaxillary region. The facial vein has no valves so that a retrograde thrombosis can easily occur. It is also connected with the cavernous sinus by anastomosis with the supra and infra-orbital veins, the nasal vein,

the facial communicating vein and the pterygoid plexus.

Bearing in mind now the structure of the lip, with practically no subcutaneous tissue, it will be seen how readily an infection may extend to the deeper structures and into areas of rich venous network with free anastomosis with the facial vein and cavernous sinus. The pathology of these infections, once they reach the deeper structures, is essentially a septic thrombophlebitis of the small veins which make up the labial plexus. Extension of this process into the facial vein produces at once a very serious condition and further extension into the cavernous sinus is almost invariably fatal. There are two factors chiefly responsible for the spread of infection into the larger venous channels. These are motion and trauma and of the two the latter, namely the trauma, is by far the more important one. The first principle in the treatment of phlebitis anywhere in the body is rest but this is not observed in the upper lip because of the almost constant action of the facial muscles. This is usually given as an important factor but is probably of slight importance and then only in the early case. Trauma is the real cause of extension of infection in most cases. The history of the advanced cases is almost always the same. A small pimple is noticed on the lip and it is immediately opened with a pin and squeezed. Within a few hours the surrounding tissue becomes reddened, swollen and tender and the pimple is again punctured and squeezed. When it is remembered that under favorable conditions, each organism divides every 30 minutes and that in 12 hours each will have 15 million descendants it is not at all surprising that by repeated injury in this region some of these are forced into the larger veins and there establish a septic thrombophlebitis. The sequence of events in the fatal case is local thrombophlebitis, extension into the facial vein and finally thrombosis of the cavernous sinus and septicemia. According to Chisolm and Watkins, the mortality in cavernous sinus thrombosis is 93 per cent, but it is probably higher than that for in cases that recover we do not have positive evidence that they had a real thrombosis of the sinus.

In the treatment it is necessary to recognize three distinct stages: (1) The primary local lesion which always appears quite innocent. (2) Extension into the labial plexus and facial vein and (3) involvement of the cavernous sinus. Treatment should be preventive in the sense of preventing the spread of the infection, so the treatment of the first stage is of the utmost importance. The ordinary, superficial pimple which is first noticed by looking into the mirror and which

is by this time already localized and about to open itself is practically never dangerous and is easily evacuated. However, trauma must be avoided even in these. The so-called blind pimple which first makes its presence known by tenderness on pressure sometimes slight pain of a throbbing character, and appears as a slightly indurated red spot is more deeply seated and must be treated as a potentially serious condition. Avoidance of even the slightest trauma must be observed in these. Nature's treatment is rest, and hyperemia of the part and then localization and expulsion of the infection and this happens to most of them if left alone. We can increase the hyperemia and hasten localization by the application of heat and can aid in the expulsion of the infection by the use of a softening, keratolytic ointment as one containing 5 per cent salicylic acid.

In the second stage there is a thrombophlebitis of the surrounding portion of the labial plexus extending sometimes into the facial vein. This produces an extensive, hard, dusky red indurated swelling with usually one or more small foci of suppuration. There is a surrounding edema extending sometimes along the course of the facial vein and involving the eyelids. The temperature and white blood count are high and the patient complains of a deep throbbing pain. There are two lines of treatment which may be followed in this stage: the radical and the conservative. The radical consists of incision and drainage and the conservative of hastening localization and expulsion as outlined in the treatment of the first stage. Authorities still disagree as to which of these is the better but the weight of evidence certainly favors the conservative treatment. The experiments of Gianì are very much to the point and demonstrate beyond any doubt the bad effect of trauma in infections. He produced open wounds in animals and at the end of two hours carefully placed pieces of filter paper soaked in a virulent culture of the anthrax bacillus on these open wounds. If the animals were kept absolutely quiet one-third of them survived even at this early time. When however, the filter paper was rubbed on the wounds, all of the animals died. He repeated this experiment on wounds, 6, 8, 10 and 14 hours old. In the 14 hour wounds all of the animals survived but if the protecting wall of leucocytes was broken down by rubbing the filter paper on the wounds the animals all died. Many who formerly advised wide incision have now turned to the conservative line of treatment. Wrede and Lexer are notable among these. Ligation of the angular vein has been done in this stage and there is good reasoning in such a procedure, since it

is through this vein that the cavernous sinus is usually involved. As already noted, however, there are other connections between the facial vein and the sinus and extension may occur through these. The angular vein is the most direct and most important anastomosis and in a rapidly progressing infection ligation of it may prevent sinus involvement. The difficult problem is to decide just when ligation should be done. It must, of course, be done before the vein itself becomes infected, and that is very hard to decide. Many cases progress to the late second stage and recover without ligation so if the procedure is advised early in the second stage many will be done needlessly. The value of ligation and the indications for it are still debated points but it is to be seriously considered in a rapidly progressing case. Vaccines are of no value in this stage because the patient is already being vaccinated to the highest degree by the existing infection and as yet there is no successful serum containing antibodies for the staphylococcus.

The third stage, that of the thrombosis of the cavernous sinus, is usually ushered in by a severe chill followed by high fever, although in a few cases the chill is lacking. The eye lids of the affected side become edematous and there is chemosis of the conjunctiva. A steadily increasing exophthalmus appears next, the pupil becomes dilated, the eyeball fixed and the patient complains of severe headache. Sometimes there is vomiting and in young patients there may be convulsions. Usually within 48 hours, if death does not intervene, the other cavernous sinus becomes involved through the circular sinus and the picture is duplicated on that side. The pulse is rapid, small and thready, the temperature goes higher and higher and finally there is delirium, coma and death. The blood culture is usually positive in this stage.

No form of treatment is successful after thrombosis of the cavernous sinus has become established but the patient must, of course, be supported as in any other overwhelming infection. The thrombosis has been attacked surgically in a few cases by Hartley, Dwight, Germain and others but without avail. The fact that the sinus is trabeculated and that the infection is always sooner or later bilateral makes any attempt at drainage useless.

A brief review of 2 recent cases may be of interest. Mrs. F. T. Age 22, noticed one afternoon a small tender red pimple on the extreme right corner of the upper lip. Movement of the lip caused slight pain. That evening she attempted to open it with a needle and squeeze out the pus but only a small amount of blood was obtained. There was a slight almost continuous throbbing pain all

light and the following morning the lip was badly swollen. When first examined that afternoon the lip was swollen to twice normal size and there was a surrounding edema extending a short distance along the side of the nose. The center of the swelling was red without any visible suppuration. Her temperature was 100.2. Hot packs were used every two hours alternating with 5 per cent salicylic acid ointment. The following day the edema was practically gone and in the center of the indurated area was a small localized focus of suppuration. The same treatment was continued and for a few days there was a small amount of drainage followed by complete healing.

This case had its beginning in a small, rather deep infection and was forced into the early second stage by trauma. Conservative treatment resulted in recovery.

The second case, Mr. C. E., Age 49, came in 6 days after onset. One morning while shaving he noticed a sore, red, elevated spot on the left side of the upper lip. This was squeezed and soon became painful and swollen. Poultices were applied and on the third day it began to drain. Examination revealed a well localized abscess the size of a large cherry with a dry crust over the opening. This crust was carefully removed and hot packs alternated with salicylic acid ointment prescribed. Drainage continued for five days and recovery followed.

These cases are examples of thrombophlebitis of the labial plexus caused most likely by the early trauma. Continued trauma and incision were avoided in the treatment, for fear of spreading the infection into the facial vein and cavernous sinus.

A New Silver Compound

Of silver compounds there is no end. Always it seems, the advantage is offset, in part at least, by some disadvantage; and to the credit of the manufacturing chemist be it said that the disadvantages as they appear stimulate further research, to the end that a perfect product may be evolved. One of the latest and in one sense the most acceptable of these compounds is Neo-Silvol.

Neo-Silvol is silver iodide in colloidal form. The "Neo" applies to the color, for Neo-Silvol makes a milky, opalescent solution, in contradistinction to the brownness of the ordinary silver antiseptics.

We are told by the manufacturers, Parke, Davis & Co., that Neo-Silvol has a phenol coefficient of 1—in other words that it is equal, in certain circumstances, to carbolic acid as a germicide; and that solutions as concentrated as 50 per cent have very little if any irri-

tating effect when applied to infected and inflamed mucous membrane.

Milliken Appoints New Sales Manager

John T. Milliken & Company, Saint Louis, Missouri, announces the appointment of E. F. Gillis as general sales manager with headquarters in the main office. Mr. Gillis comes from the firing line, having formerly been in charge of the Western Sales Division at Denver, Colorado, where he distinguished himself creditably.

The appointment of Mr. Gillis is the first of numerous changes contemplated during 1924 and made necessary in keeping with the policy of expansion that the Milliken house has decided upon. A class of seventeen new salesmen, everyone a thoroughly qualified pharmaceutical man, has just completed an intensive sales training course at the plant and started traveling in various territories.

A New A. C. S. Monograph

The publication of a new American Chemical Society Monograph is announced by The Chemical Catalog Company of New York. This recent book by Dr. George W. Raiziss, Ph.D. and Joseph L. Gavron, B.S., is entitled "Organic Arsenical Compounds." It is probably the most complete and comprehensive work on this subject that has ever been published.

Doctor Raiziss, Professor of Chemotherapy, Graduate School of Medicine, University of Pennsylvania, is well known for his research work and writings on arsenical compounds. He was the first laboratory worker in the United States to successfully develop American-made arsphenamines for use in the treatment of syphilis. Mr. Joseph L. Gavron has been associated with Doctor Raiziss in literary and laboratory work done in The Dermatological Research Laboratories of Philadelphia.

While this volume of 550 pages covers exhaustively the entire field of arsenicals from a chemical view-point, there is much of interest to those physicians particularly interested in the chemotherapy of the arsphenamines.

The harmful effects of the prolonged administration of bromids aside from the skin and intestinal effects, are gradually increasing dullness, heaviness, torpor, stupidity, with greater self centering of interests and unintelligence. The size of the dose that is necessary to control the fits is probably an important factor in determining the amount of damage that will be done. (Jr. A. M. A., Jan. 26, '24.)

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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Next Annual Meeting at Wichita

The Council at its meeting at Kansas City, January 22, decided to change the place for the next annual meeting of the Society from Iola to Wichita.

The Sedgwick County Society sent in an invitation to meet in Wichita and Dr. Mitchell very gracefully relinquished the claims of the Allen County Society realizing that it would be to the interests of the Society to meet in a larger city. The dates decided upon are May 7 and 8.

A committee which was appointed at the last annual meeting to arrange a schedule of meeting places reported the following schedule: Wichita 1924, Topeka 1925, Kansas City 1926, Hutchinson 1927, Wichita 1928, Topeka 1929, Kansas City 1930, Salina 1931.

The resignation of Dr. J. H. Tapscott as Councillor for the 11th District was presented and accepted. Dr. Tapscott was elected at the last annual meeting. The Council elected John A. Dillon of Larned to fill this vacancy until the next annual meeting.

Among a few other matters of minor importance was the re-election of the present incumbent as editor of the Journal for another year.

As has been the custom for several years the Wyandotte County Society invited the

members of the Council to attend its annual banquet. The members of the Wyandotte Society are enthusiastic entertainers and generous hosts.

A custom, once established, seems to hold with persistent tenacity. When our Society was reorganized it became the custom to elect the retiring president as delegate to the A. M. A. When we became entitled to two delegates each retiring president was elected for a term of two years. During the short period when we were entitled to three delegates some other member was also elected.

Under the last apportionment we are entitled to one delegate for each 800 members or major fraction thereof. Up to this time we have continued the custom of electing the retiring president for two years, so that we have nominally two delegates. We have always considered that in this custom we were conferring an honor, but those who have attempted to fulfill the duty that honor carries with it have complained of the onerous character of the duty and the insignificance of the honor.

If one keeps in touch with the proceedings of the House of Delegates of the American Medical Association and knows how to cast his vote for the best interests of his state society—if he really represents his society in the House of Delegates, it is imperative that he attend all its sessions—attend them regularly and constantly. If he does so he will have little or no opportunity to hear the various papers and discussions in which he may be interested. In such a capacity one cannot anticipate or realize any personal pleasure or intellectual profit.

It has apparently been assumed that the honor conferred was of sufficient magnitude to justify the recipient in paying his own expenses and giving all his time to the business of the Society. Few of those who have received this honor have felt that way about it.

The time has come when it is imperative that our Society be represented in the House of Delegates—that someone be selected who will attend the meetings and be present at every session of the House of Delegates, someone who is in close touch with our state or-

ganization and sufficiently familiar with the A. M. A. organization and its affairs to understand and take part in the proceedings. It is evident that the efficiency of any one so elected will increase with his years of service in that capacity, so that he should be elected for as long a term as the rules permit, or his continued re-election should be contemplated. It would certainly be unfair to ask him to pay his own expenses. The Society should provide for this at least.

This plan would not interfere with our old custom of electing the retiring president a delegate except that he would be elected for a term of one instead of two years. The honor will be quite as great and, so long as the Society is efficiently represented by its active delegate, need not be necessarily burdensome.

Those of us who were raised and educated under the old regime in medicine, fully impressed by the traditional rules of conduct toward the afflicted people, saturated with those sentimental ideals of sacrifice and unrequited service that were sung by the poets in the past century, are slow to realize or appreciate the rapid changes that have marked the progress of medicine, and look with disfavor upon the advent of commercialism in the practice of today. However, one's sentiment must submit to his judgment and one must recognize it as a fact that people will be better served and doctors better paid when the practice of medicine is put upon a strictly business basis.

Conditions now do not demand self sacrificing devotion to a labor of love, nor is such devotion very largely appreciated. The people have themselves relegated the devoted family doctor to the ash heap. They demand service and skill and expect to pay for it, and they go wherever they think it can be had.

With the situation as it is now and with an outlook for still more definite and certain commercialization in the practice of medicine, a question arises as to the scope and character of the various organizations of medical men. If it shall appear that those now in existence can best be maintained as essentially scientific bodies and their functions restricted

to reading of papers and discussion of scientific subjects, then other organizations must and certainly will be formed, organizations that will function specifically in the field of medical economics.

With such organizations as those we now have it seems quite unnecessary that others be contemplated. There seems to be no good reason why these organizations should not enlarge the scope of their activities to cover all the requirements of modern medicine. Without placing our societies on the same basis as the union it is possible to provide at least the larger benefits which accrue to the members of a union.

Since the American Medical Association is really a federation of state associations, since a large number, possibly a majority, of the state associations have already made some provisions for the defense of their members in suits for malpractice, since such a defense system could be more economically and more efficiently controlled by the central organization, the delegates from the various state associations should co-operate in bringing this about. There are other benefits which the association could confer on its members, such as sick, accident and old age benefits. The state association by co-operating could secure automobile insurance for their members at a small per cent of its present cost.

Since we have these organizations it is more a matter of sentiment than good judgment that their usefulness to the members is restricted to the present narrow scope.

Some criticisms have been received on an editorial that appeared in the January number of the Journal on "Periodic Examinations of the Apparently Well." It is said that the meaning in some places was uncertain.

It may be proper now to say that it was not the intentions of the article to discourage such examinations, provided these examinations be conducted with the same care that the physician would use in an examination of a patient that came to him with manifestations of disease—on the theory that it would require fully as painstaking and searching an examination to determine what if anything

might be wrong with a person who is apparently well as with one who presents some definite symptoms.

The writer received the impression from the blank which was prepared by the committee and by the pamphlet of instructions accompanying it that the purpose of these examinations was simply to point out to the person examined the *obvious* deviations from a normal standard of health, such examinations as are now being given the people by various lay and semi-medical organizations or the agents of these organizations.

It was intended to suggest that for the American Medical Association or the medical profession, as such, to sponsor a campaign for that character of periodic examination would not harmonize with the high ideals nor the scientific standards of modern medicine.

If, on the other hand, such examinations are to be given by physicians to the members of their own clientele and are to be of an exhaustive character, the people will receive the benefits which they have a right to expect and the medical profession will be properly rewarded in the greater confidence the people will have in their skill, as well as their good intentions.

—R— Standing Committees

Executive Committee of Council—Dr. E. D. Ebright, Wichita; Dr. J. F. Hassig, Kansas City; Dr. Geo. M. Gray, Kansas City; Dr. O. P. Davis, Topeka; Dr. C. C. Goddard, Leavenworth.

Committee on Public Health and Education—Dr. M. O. Nyberg, Topeka; Dr. C. Klippel, Hutchinson; Dr. James W. May, Kansas City; Dr. F. H. Smith, Goodland; Dr. O. D. Walker, Salina; Dr. H. E. Haskins, Kingman; Dr. E. L. Morgan, Phillipsburg.

Committee on Public Policy and Legislation—Dr. W. S. Lindsay, Topeka; Dr. C. S. Huffinan, Columbus; Dr. J. A. Milligan, Garnett; Dr. E. D. Ebright, Pres., ex-officio; Dr. J. F. Hassig, Secy., ex-officio.

Committee on School of Medicine—Dr. L. F. Barney, Kansas City; Dr. W. M. Mills, Topeka; Dr. L. S. Nelson, Salina; Dr. C. H. Jameson, Hays; Dr. Alfred O'Donnell, Ellsworth.

Committee on Hospital Survey—Dr. Geo. M. Gray, Kansas City; Dr. John L. Evans, Wichita; Dr. W. M. Mills, Topeka.

Committee on Medical History—Dr. W. E.

McVey, Topeka; Dr. W. S. Lindsay, Topeka; Dr. O. D. Walker, Salina.

Committee on Scientific Work—Dr. J. F. Hassig, Kansas City; Dr. H. L. Chambers, Lawrence; Dr. F. A. Carmichael, Osawatomie.

Committee on Necrology—Dr. E. E. Liggett, Oswego; Dr. J. F. Hassig, Kansas City; Dr. W. E. McVey, Topeka.

—R— CHIPS

Of the foods, milk has the percentage of fats, carbohydrates and proteins most equally distributed, viz., protein 4%, fat 4%, carbohydrates 5%, although its food value per pound in calories is but 320.

"Premature gray hair is caused by excess gray substance in the brain. The roots of the hair have but a short distance to grow down. When the hair turns gray slowly or not at all it is because of the resistance of the crust from its thickness and hardness resisting the root growth inward, and scarcity of gray matter for pabulum. Over excess of gray matter causes baldness."

Proteins and carbohydrates are helpers and protectors each of the other. Proteins are tissue builders, in growth and repair of the body, and carbohydrates furnish the energy. Proteins are poor energy producers. Carbohydrates are poor tissue builders. Their work is on a 50-50 basis or agreement. But not on the basis of the German merchant's rabbit sausage which he admitted was rabbit and horse meat 50-50. "Vell," said he, "I puts him one rabbit und one horse." While the proteins and carbohydrates cannot supplement each the other in its function, it is probable that tissue building by the proteins can be done only in the presence of the carbohydrates.

Steffanson, the Arctic explorer, says that vegetables and lime juice are not specifics for scurvy in the Arctic regions. He found Eskimos in that region living under conditions favorable to long life. The secret of living in Eskimo land and to keep well is to live as the Eskimo lives. For frost bite, in those regions, apply warmth. He said he had his face frost bitten often and pulled his mitten off his hand and held the warm hand on the site of the frost bite and the frost disappeared. The only after effect was a slight peeling of the skin.

The most striking thing in his report is that vegetables and citrus juices do not prevent or cure scurvy.

Prof. DeGiovanni of the University of Padua, gives the following measurements as a standard of correct proportions: The thor-

anic circumference (chest at rest) is equal to one-half the height of the body. The length of the sternum (manubrium and gladiolus) is equal to one-tenth, from the end of the gladiolus to the center of the umbilicus is equal to one tenth, and from the center of the umbilicus to the crest of the pubis is equal to one-tenth the height of the body. The bi-iliac diameter is equal to four-fifths the length of the abdomen or two twenty-fifths of the height of the body.

"It is a matter of common observation that acute erythema and urticaria may result, in some persons, from eating certain forms of fish, shell fish, also from strawberries, bananas, mushrooms, etc. Acne is continually seen to occur from dietary indiscretions, chocolate, nuts, cheese, etc. Alcoholics, even wine and beer, produce acne rosacea, etc., etc. In the same manner chronic tissue changes are caused by erroneous diet, as scorbutus, from absence of fresh vegetables and psoriasis from excessive meat eating. So the erroneous actions of certain body cells, forming cancer, have been shown by many to result from faulty or excessive food and drink." (*L. Duncan Bulkley, Cancer, Jan. '24.*)

"We are now at the parting of the ways in the treatment of cancer. Many good men claiming that regressions take place in many cases by proper medical treatment, and another branch of the profession claiming that surgery is the only relief. There is no doubt that for a long time this subject will be the cause of more or less heated arguments. I wish to make the prediction that within the next ten years the handling of cancer will be so well understood, that many who are willing to undergo what they now think the privations of a restricted diet, and with the help of some medicines, can be returned to a state of nearly, or quite perfect health, while those badly afflicted can, possibly, be much benefited." (*Russell C. Kelsey, Cancer, Jan. '24.*)

The National Health Council is making a campaign for periodic health examinations and in co-operation with this effort the Metropolitan Life Insurance Company has produced a motion picture entitled "Working for Dear Life." This film will be sent free to health associations or other organizations desiring it, except for transportation charges. It is desired that this picture be given a wide circulation and organizations that may have an opportunity to use it should write for application blank to Lee K. Frankel, Metropolitan Life Insurance Company, New York City.

With the rapidly growing and somewhat promiscuous use of vaccines it might be well,

since it is possible, to determine beforehand the probable response that may be expected. Storer in the *Lancet*, Dec. 22, '23, suggests that a few drops of blood be secured from the patient and also from a normal individual. These are defibrinated and to two volumes of each specimen is added one volume of a staphylococcal or other suitable bacterial suspension. These mixtures are incubated for 15 or 20 minutes and then examined for phagocytic intake. If the specimen containing the patient's blood shows a phagocyte count of one-third or less of the count in the normal patient's blood, it is not due to deficiency of opsonic power of the serum but to diminished activity of the leucocytes. In such case the patient's leucocytes will be incapable of making satisfactory immunizing response to injections of vaccine.

In a very elaborate and scientific description of the thyroid apparatus in man (*Lancet* Dec. 22, '23) Dr. Scott Williamson concludes that the thyroid gland, the parathyroid bodies and the thymus are intimately related anatomically, physiologically and pathologically. The thyroid gland is the main organ. The parathyroid is a sentinel gland of neuro-lymphatic nature, set in the course of the effluent, probably engaged in measuring the efficiency of the thyroid gland, and through the sympathetic nervous system adjusting its operations to the needs of the body. The thymus is a reservoir for the effluent, which according to its nature is stored either as fat or in the lymphocytes. The lymphocytes function as nitrogen carriers. He offers the hypothesis that the thyroid apparatus is primarily concerned in controlling the direction of protein synthesis within the body, making it either a synthesis of plastic nitrogen, or trophic nitrogen, as the case may demand, the thymus being the reserve store of such nitrogen.

In the report of the medical work of the Near East Relief it is stated that one of the very troublesome affections of the Aleppo district was sandfly fever, phlebotomos fever. It is an acute fever of short duration and is somewhat similar to dengue. Cases appear early in June and continue through the hot seasons. Its duration is from sixty to seventy-two hours. There is no relapse, but marked depression and weakness during and following the fever. There is no leucocytosis, no splenic enlargement and no demonstrable parasite in the blood. There is no permanent immunity.

A recent report of the medical work of the Near East Relief is quite interesting. At the Smyrna Station, it is stated, the most fre-

quent disease was scabies which, so far as children were concerned, was almost universal. Pulmonary tuberculosis was common. In the late summer malaria became more and more common and was of greater severity. There seemed to be no marked restriction of diseases to special races, although syphilis seemed more common among the Jews and tuberculosis among the Greeks, while the Armenians appeared to have a monopoly of infection by the tapeworm.

The latest edition of *Useful Drugs* speaks of the salicylates, cinchophen, neocinchophen and related drugs as "highly efficacious" and "exceptionally efficient" in the management of certain phases of arthritis. The assumption that the drugs exert an etiotropic action by destroying bacterial agencies responsible for the disease has repeatedly been disproved. They do not function as germicides, for example, in rheumatic fever assumed to be caused by micro-organisms. Recently, Hanzlik and Painter compared the antiphlogistic effect of salicylates cinchophen and neocinchophen in experimental edema of head and neck. They concluded that the so-called antiphlogistic action of these drugs as exemplified in the prompt amelioration of objective signs of inflammation, including the swelling and edema of the joints, is not due to a direct action on the inflammatory process. Experimental edema of the head and neck in animals was not beneficially influenced by previous and simultaneous treatment of the animals with sodium salicylate, cinchophen or neocinchophen. Negative results with respect to antiphlogistic effects have also been observed in the treatment of other kinds of edema. Consequently it is concluded that the beneficial effects of these drugs in rheumatic fever appear to be produced neither through etiotropic nor organotropic, but rather through symptomatic action, the benefits being mediated through antipresis and analgesia. (*Jr. A. M. A.*, Jan. 19, '24.)

In the presence of diphtheria, no age is a contraindication to the administration of antitoxin. The dose for infants of from 10 to 30 pounds and under two years of age has been given as from 2,000 to 10,000 units. The immunity to diphtheria in young infants seems to depend on antitoxin received from the mother through the placental circulation. This immunity is possessed by more than 90 per cent of children in the early weeks of life, but at the end of a year this has been lost by about half of them. Serums are well borne by young children, as they have little sensitiveness to foreign proteins. A suitable immunizing dose of diphtheria antitoxin for

an infant would be from 200 to 500 units, and the therapeutic dose from 2,000 to 10,000 units. (*Jr. A. M. A.*, Jan. 19, '24.)

Dr. Frankwood E. Williams was re-elected Medical Director of the National Committee for Mental Hygiene at the annual meeting of the Board of Directors, held in New York City, on December 28. The following were elected members of the Executive Committee: Dr. William L. Russell, Medical Director, Bloomingdale Hospital, White Plains, New York; Dr. Walter E. Fernald, Superintendent, Massachusetts School for the Feeble-minded, Waverley; Dr. Stephen P. Duggan, Director, Institute of International Education, New York City; Dr. William A. White, Superintendent, St. Elizabeth Hospital, Washington, D. C.; Dr. Charles P. Emerson, Dean of the Medical School, University of Indiana, Indianapolis; Dr. C. Floyd Haviland, Chairman, State Hospital Commission, Albany, New York; Dr. Arthur H. Ruggles, Superintendent, Butler Hospital, Providence, Rhode Island, and Mr. Matthew C. Fleming, attorney, New York City. Dr. William H. Welch, President of the National Committee for Mental Hygiene, presided.

"The most important muscle to educate in patients suffering from flat feet is the quadriceps extensor. Teach your patient to stand with feet parallel and the knees braced back, and to walk with the feet parallel instead of everted and the success of the other forms of treatment is comparatively certain; whereas, without this special training, failure, or at least relapse, is almost equally certain." (*Mennell, Lancet*, Jan. 19.)

The Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals will be held at the Congress Hotel, Chicago, March 3, 4 and 5. All those interested are given a cordial invitation to attend.

From material collected during the past thirty years and from the study of 530 gall stone cases that were operated upon, and in which bacteriologic examinations were made of the contents of the gall-bladder and the interior of the gall stones, Prof. Rovsing of Copenhagen has reached conclusions that controvert some accepted theories. He ascribes the origin of gall stones in a small nucleus of pigment and believes that sepsis is a sequel rather than a cause. It is his observation also that ptosis of the liver and stomach has no causal relation to gall stones. In 300 cases operated on for gastro-coloptosis in only eight were gall stones found, and in the 530 cases operated on for gall stones there were only 18 women and one man suffering from gastro-coloptosis. He also concluded that prolonged

biliary stasis with jaundice does not produce gall stones. In 32 necropsies and 30 cases operated on for chronic biliary obstruction and jaundice there was not one showing any evidence of gall stones.

"At present the best conception of the etiology of the simple goiter is that it is a compensatory or work hyperplasia immediately dependent on a relative or absolute deficiency of iodine. Whether the deficiency is primary or secondary is unknown. When one recalls that 50 mg. of iodine will maintain the thyroid in a normal state for as long as a year, and that diets rich in fat can quickly exhaust the iodine of the thyroid, it would appear that the iodine deficiency might be considered as the primary, and possibly the essential, cause. Nevertheless, we must still consider the possibility of endemic goiter being due to some chemical agent or toxin acting to divert the normal iodine intake or to increase the needs of the organism for thyroid activity." (*David Marine, M.D., Arch. Int. Med., Dec., '23.*)

The death rate in Porto Rico, though decreasing, is still nearly twice as high as in the United States with extremely high rates for tuberculosis, malaria, rickets (malnutrition) and hookworm. The infant mortality rate is 162 per thousand babies born alive compared with 76 for the United States. There is a dearth of physicians and trained nurses, and hospital conditions are characterized as "deplorable."

From some observations made in a casualty practice and reported in the *Lancet*, Jan. 19, Dr. O. W. Roberts concludes: "Cases of trauma, particularly head injuries, cases of acute irritation of the intestinal or respiratory mucous membrane, and cases of acute supuration may be complicated by the onset of an acute severe ketosis; the younger the patient the greater is the possibility of this complication. This severe ketosis may aggravate and mask the symptoms due to the primary condition. The central nervous system, having no protection in itself against ketosis or acidaemia, suffers most, as is evidenced by drowsiness, irritability and headache.

Ketosis, if untreated, may lead to severe vomiting, may interfere with the patient's recovery, and may prolong the convalescence. In any case our knowledge of the central nervous system is so incomplete that the result of a temporary damage to the nerve cells by ketosis cannot be estimated; and the general debility, listlessness, and dread of mental strain seen in concussion cases of school age for months after the injury may be due to the

results of ketosis rather than to a possible physical trauma at the time of injury."

—————B—————

Gossip by the Prodigal

What troubles us most and peeves us is the conduct of the other fellows.

Excessive and continuous muscular exercises does not reduce flesh always, as evidenced by so many double chins in women.

The reason more women do not grow mentally after 30 years of age is that so few of them get any older.

An inferior complex is a man who has been a complete failure in life trying to make people believe the contrary.

It is hoped that the new device to prevent x-ray burns will be a success. The rays are said to emerge in a beam of energy.

Mother, like old Dobbin, will soon be a lost art, according to the new definition to "What is home without a mother?" Answer—An incubator.

Young girls in California are growing lopsided—to the left. Etiology—Good roads and leaning toward the wheel.

"Oregon and Wisconsin have eugenic laws requiring the prospective groom to have a physician's certificate stating that he is not suffering from a contagious venereal disease.

Eli is the name of the doctor who has his after thoughts first. It is a matter of history that Dennis got left and Eli got there first always.

Pittsburg, Pa., has the highest death rate from pneumonia of any large city in the United States. The principle cause is given as overcrowded and poorly ventilated street cars.

The whiligig of time is a strange actor. The summer palace of former Czar Nicholas, the second, who persecuted the Jewish fathers is now a school sanitarium for their children suffering from tuberculosis.

Nature has fixed up a shot gun diet in wheat bread. A grain of wheat, chemists tell us, is composed of the following ingredients, mostly minerals, viz., cellulose, starch, gluten, phosphorus, lime, chlorine, carbon, sodium, silicon, sulphur, potassium, manganese, nitrogen, hydrogen and fluorine. The nitrogen furnishes food for the bugs in man the same as for the roots of legumes?

The ancient Hebrew and the Fundamentalist in this age are the same and differ only

in intensity and duration in penalizing man. The Hebrew quit punishing the guilty one when he was dead but the Fundamentalists follows him up throughout eternity. Query. What will become of the doctor?

There is a "Dog and Cat Hospital" in Los Angeles run by a Veterinarian who has practiced for thirty years. There are at present (Jan. 6, '24) 80 dogs, 19 cats, 1 monkey and 1 wild cat, patients in the hospital. He operates frequently and uses an anesthetic in all but simple operations. He uses chloroform on the dogs and ether on the cats. He says he can give no reason "but I have found out that after a successful operation the cat dies from the effect of the chloroform." What is the experience of vivisectionists in the use of chloroform and ether on cats and dogs?

A "Gland Clinic" has been opened in Los Angeles. The telling feature in the advertisement is the Chief Moghul injects the goat juice into the patient's belly, upon the principle, no doubt, that it will get there quicker, to the site of the deficiency, with less loss of potential energy required by a more circuitous route. This new form of gland operation the C. M. says (in the adv.) he developed after years of research work at San Quentin Penitentiary, California, where he should be now for the good of humanity.

There is nothing so good but what somebody tries to get something better. No sooner than we get our Chaulmoogra orchard set out and grow nuts for oil to cure "leprosy" than some quack discovers a better remedy and puts us out of business and we pull up our trees, abandon our horticultural work and turn our attention to fish mongering and gardening. For we are now assured that this strange new cure for leprosy is simple, inexpensive and costs less than a dollar to cure a patient. The treatment is by injections of cod liver oil and thymol.

P. S. "It is admitted that the patient improves for a month or so and then the treatment loses its grip." Hence we will not grub up our Chaulmoogra orchard yet and will gather this crop of nuts.

The doctor who is a golf fiend and who is increasing in waist line should restrict his diet, or he may soon not be able to see the ball when he could hit it or hit the ball when he could see it.

Dr. Albert Abrams is dead. He became nationally famous in determining the father of an illegitimate child by an examination of the blood of the two showing identical reaction. He was the founder, also, of the School of Electronic Medicine.

Incidentally he left a \$2,000,000 fortune. The latter may have been an oversight or according to the fundamentalist's idea of the future haven, if it had been taken along and it was paper money it would burn up or if gold that metal is so common the streets are paved with it.

But with it all his life was not a failure, for the jolt he gave the world set it to thinking \$2,000,000 worth.

What has common school education had to do with the psychology of our present civilization?

Ninety per cent of the teachers in the common schools of the United States are women. These women have charge of the children in the formative period of the child's life. And as like begets like throughout nature it is taken for granted that the law holds good in teacher and child.

Result. The child is moulded intellectually to conform to the ideas and in the thought channels of the teacher's idea of the world and of life. The teacher's experience in the affairs of the world is not such as to prepare the pupil for a broad outlook on life. Heretofore her life and experience has been retired and domestic. Her association has been restricted. Her life and spirit has been under submission. She has not been aggressive. Hence she has not the initiative. She is not pugnacious and pugilistic.

Query. Is there anything in the foregoing suggestions or statements to show why the present day graduate from the common school is not up to the requirements of the business man? Or why the leading educators deplore the lack of our school system in getting results commensurate with the money expended? And the conduct of the average boy and girl toward their teachers, elders and society? Has modern education under woman control tended to make he-men?

—R—

Legal Duty of Physician as Between His Patients and the Public in Disclosing Professional Secrets

LESLIE CHILDS

The physician, in the practice of his profession, may acquire an intimate knowledge of the life and habits of his patients. A patient as a matter of course confides in his medical adviser, and frequently the latter is permitted information that if disclosed unwisely would cause embarrassment and possible loss to the other.

And, to the credit of the medical profession, it may be stated that the history of medical jurisprudence amply justifies the confidence thus displayed by the laity. For a careful

search of the books discloses but few cases in which a physician or surgeon has even been accused of betraying a professional secret; and in none of the cases examined was the defendant found guilty.

And so strongly has this rule of secrecy, followed by the medical profession, in the matter of disclosing information acquired in trust and confidence, appealed to the general public that statutes have been widely enacted which expressly prohibit its violation. And, so long as the observance of this right of the individual patient does not encroach upon the superior right of the public to its safety from a sanitary standpoint, few, if any, exceptions are encountered. However, when the observance of this right of the individual can only be attained by endangering the superior right of the public the physician or surgeon in charge has reached the borderline.

This then brings us to the question of how far, as between his patients, and the public, the physician is justified in going in holding inviolate confidential matter received in his professional capacity. And as an illustration of judicial reasoning on the question it is believed that *Simonsen vs. Swenson*, 104 Nebraska, 224, is perhaps the clearest case the books contain. The facts, as gathered from the report, were in the main as follows.

The plaintiff was employed by a telephone company in a town in Nebraska. He was a stranger in the place and was boarding at a small hotel operated by a Mrs. Bristol. The plaintiff became afflicted with sores on his body and applied to the defendant, a practicing physician, for treatment.

PHYSICIAN BELIEVED PATIENT HAD CONTAGIOUS DISEASE

The defendant obtained the history of the plaintiff's trouble, and after giving him a physical examination, told him that his disease appeared to be syphilis. The defendant also stated that he was not positive of this, and, that to make certain, Wassermann tests would be necessary. These however, it appears, the defendant did not make because he did not have the equipment.

The defendant was also the physician of the Bristol family, and he told the plaintiff that there would be danger of communicating the disease to others in the hotel and requested him to leave the hotel. The plaintiff, it appears agreed to this, but the defendant on making a professional call upon Mr. Bristol the next day was informed that the plaintiff had not left the hotel.

The defendant thereupon told Mrs. Bristol that in his opinion the plaintiff was afflicted with a "contagious disease," and warned her to disinfect his bed clothing, and to wash her

hands in alcohol afterwards. Mrs. Bristol thereafter placed plaintiff's belonging in the hallway, fumigated his room, and he was forced to leave.

After leaving the hotel the plaintiff consulted another physician who examined him and made some tests, but this physician did not determine positively whether or not the plaintiff was afflicted with syphilis. He stated in substance, however, that the symptoms and information upon which the defendant acted were sufficient to raise the belief that the plaintiff was afflicted with the disease.

On this state of facts the plaintiff thereafter filed the instant suit for damages against the defendant. His contention being that, as the relationship of physician and patient had been established between him and the defendant, the latter was absolutely prohibited in law from making a disclosure of any confidential communications between them.

Upon the trial of the cause in the lower courts a judgment was rendered in favor of the defendant. The plaintiff carried the case to the Nebraska Supreme Court. Here, in passing upon the record, the court among other things reviewed the Nebraska statutes relative to wrongful disclosures by physicians.

NEBRASKA STATUTE CONSTRUED

In this connection it was pointed out that a physician's license might be revoked for "unprofessional or dishonorable conduct," and that among other things the "betrayal of a professional secret to the detriment of a patient," was defined by the statute as misconduct. In construing this provision of the statute the court, in part, said:

"By this statute it appears to us, a positive duty is imposed upon the physician, both for the benefit and advantage of the patient as well as in the interest of general public policy. The relation of physician and patient is necessarily a highly confidential one. It is often necessary for the patient to give information about himself which would be most embarrassing or harmful to him if given general circulation. This information the physician is bound, not only upon his own professional honor and the ethics of his high profession, to keep secret, but by reason of the affirmative mandate of the statute itself. A wrongful breach of such confidence, and a betrayal of such trust, would give rise to a civil action for the damages naturally flowing from such a wrong."

Following the foregoing statement of the duty of the physician, in keeping professional secrets, the court turned to the question of exceptions, and in this connection it was said.

EXCEPTIONS TO RULE OF SECRECY

"Is such a role of secrecy, then, subject to any qualifications or exceptions? The doctor's duty does not necessarily end with the patient; for, on the other hand, the malady of his patient may be such that a duty may be owing to the public and, in some cases, to other particular individuals. * * *

"No patient can expect that if his malady is found to be of a dangerously contagious nature he can still require it to be kept from those to whom, if there was no disclosure, such disease might be transmitted. The information given to a physician by his patient, though confidential, must, it seems to us, be given and received subject to the qualifications that if the patient's disease is found to be of a dangerous and so highly contagious or infectious nature that it will necessarily be transmitted to others unless the danger of contagion is disclosed to them then the physician should, in that event, if no other means of protection is possible, be privileged to make so much of a disclosure to such persons as is necessary to prevent the spread of the disease. A disclosure in such case would, it follows, not be a betrayal of the confidence of the patient, since the patient must know, when he imparts the information or subjects himself to the examination, that, in the exception stated, his disease may be disclosed. * * *

"In making such disclosure a physician must also be governed by the rules as to qualifiedly privileged communications in slander and libel. He must prove that a disclosure was necessary to prevent spread of disease, that the communication was to one who, it was reasonable to suppose, might otherwise be exposed, and that he himself acted in entire good faith, with reasonable grounds for his diagnosis and without malice. * * *

"It appears to us that the facts disclosed by the record in this case that the occasion was privileged; that the defendant had reasonable ground for his belief; that he made no further disclosure than was reasonably necessary under the circumstances; and that he acted in good faith and without malice * * *

In closing the court affirmed the judgment rendered in the lower court in favor of the defendant, physician. Holding, as outlined in the foregoing review, that the defendant, in the light of the facts and circumstances, had not been guilty of wrongfully disclosing a professional secret.

CONCLUSION

It goes without saying that every practicing physician and surgeon will appreciate the embarrassing dilemma that confronted the defendant physician in the foregoing case. He was without doubt keenly alive to both

his ethical and statutory duty in respect to keeping secret the knowledge he had gained in confidence of his patient's ailment. On the other hand, he was mindful of his duty to the public which would, in his opinion, be endangered unless the patient followed his advice and moved from the hotel in which he was stopping.

Thereafter when it appeared that the patient would not obey the request to find other quarters, the defendant physician unquestionably felt that he had gone as far as his duty required in keeping secret the knowledge he had gained from the other; and, acting in the interest of his superior duty to innocent third parties, he thereupon made such disclosure as in his opinion was necessary to discharge his duty to the latter. And this act on his part, as we have seen, was, in view of all the circumstances, upheld by the court in its opinion.

It is of course obvious that each case of this kind must be decided in the light of the particular facts involved, and perhaps in connection with some statutory enactment. It follows, that the holding in the foregoing case can hardly be made the basis for the statement of a general rule, that would govern the subject in all cases. However, the opinion rendered was well considered, and in the light of the paucity of authority on the subject and the facts involved, it becomes a very valuable decision for the medical profession. For it, at least in some degree, furnishes a guide post upon what appears to be, legally speaking, almost an unchartered way.

— R —

SOCIETIES

DECATUR-NORTON COUNTY SOCIETY

The annual meeting of the Decatur-Norton County Medical Society was held at the Commercial Club rooms, Norton, Kansas, on Monday, December 17th, 1923.

A clinic and inspection of the State Sanatorium was held between ten and twelve; and the visiting physicians were the guests of the Norton Rotary club at a noon day luncheon at the Metcalf Cafe. At 1:30 p. m. the following program was given:

Paper on Hemorrhages from the Stomach, C. W. Ward of Lenora.

Dr. George Knappenberger delivered an excellent talk on the Early Treatment of Cancer.

Lobar Pneumonia, Dr. Herbert Bennie of Almena.

Case Reports, Dr. Kenneth Hoover, Norton.
Paper, "Certain Problems that Present Themselves in the Practice of Medicine," Dr. C. W. Poynter, Professor of Anatomy, Uni-

versity of Nebraska Medical College, Omaha, Neb.

The following physicians were present: C. W. M. Poynter, Omaha; Kenneth Hoover, Norton; F. D. Kennedy, Norton; H. Bennie, Almena; R. Brenner, Norton; Dr. F. H. Smith, Norton; C. W. Cole, Norton; Geo. Knappenberger, Kansas City; W. F. Lewis, Colby; B. H. Rouse, Goodland; W. F. Deal, Edmund; John Jeurinck, Prairie View; A. Jeurinck, Norton; H. O. Hardesty, Norton; E. J. Beckner, Norton; R. M. Tinney, Norton; W. A. Van Diest, Norton; Dr. Winn, Norton; J. A. H. Peck, Norton; Dr. Colby, Stockton; Dr. Stivers, Stockton; Dr. Jan Smith, Norcatur; A. G. Davis, Norton; C. W. Ward, Norton; T. J. Walz, Norton; D. H. Morgan, Oberlin; Dr. Fuller.

This was one of the largest and most enthusiastic meetings ever held by the society. The following officers were elected:

Dr. C. W. Cole, President.

Dr. H. Bennie, Vice-President.

Dr. Fuller, Second Vice President.

Dr. C. S. Kenney, Secretary and Treasurer.

Dr. Lathrop, Censor.

Dr. F. H. Smith and Dr. W. M. Deal, Delegates.

The following tentative program was arranged for the next meeting.

Infant Feeding, W. F. Deal.

Acute Osteomyelitis, Case Report, F. J. Walz.

Acute Abdominal Obstruction, C. E. Heneberger.

"Third Stage of Labor," A. G. Davis.

The physicians were the guests of the local organization at a 6:30 dinner at the Metcalf Cafe.

C. S. KENNEY, Secretary.

BARTON COUNTY SOCIETY

The Barton County Medical Society has just completed a very successful year, perhaps the most successful year in the history of the Society. The reason for this is doubtless that the society voted to have only about six meetings a year and to have at least one man of considerable prominence on each program, and also one man from an adjoining county, and to have a dinner in the evening according to the old theory that, "the way to man's heart is through his stomach."

Our system of meeting the expenses involved in obtaining prominent men from a considerable distance is rather unique. We make a contract with our County Commissioners to take care of the County Poor, and the County Health work as a society. Each man takes care of those who come his way. In other words all members are Deputy County Physicians, and Deputy County Health

Officers, while one member is named as official County Physician and County Health Officer. He obtains half of the salary for the above work, and the County Medical Society the other half. These funds are used by the Society to pay for subscriptions to The Journal A. M. A. and the Journal of the Kansas Medical Society, for all members who are residents of Barton County, for expenses of securing prominent lecturers, paying for dinners, annual banquet for members and their wives, etc.

Our meeting last April consisted of a lecture by Dr. C. C. Conover, Internist of Kansas City, Mo., on Blood Vessels, and the effect of infectious diseases upon them, illustrated by instructive lantern slides. Dr. J. A. Dillon of Larned read a very helpful paper on Tuberculosis of the Hip in Children.

June 11, meeting at Hoisington was very helpful. Dr. H. G. Norton, Pediatrician of Wichita, read a paper on Infant Feeding. Dr. David E. Broderick of Wichita read a good paper on "Some Methods of Handling Fractures, and Results Obtained," illustrated by lantern slides. Dr. R. A. West of Wichita, read a paper on "Diet During Pregnancy."

On September 18 Dr. C. F. Corrigan of Wichita, read a paper on Diet in Diabetes in Conjunction with Insulin. A paper by Dr. E. J. Frost, Roentgenologist of Wichita, on the Differential Diagnosis of Bone Tumors, was very instructive and thorough. Dr. Alfred O'Donnell of Ellsworth, read a very practical paper on Ureteral Calculi.

On October 30th Dr. Wm. L. McBride of Kansas City, Mo., held a very successful and instructive skin clinic in Great Bend. Dr. Frank Ridge, Internist of Kansas City, Mo., read a paper on "Asthma and Other Problems of Sensitization." Dr. L. A. Latimer of Alexander, followed with a paper on "Diagnosis and Treatment of the More Common Diseases of the Eye." Dinner was served at the Country club, after which Dr. J. D. Clark, Obstetrician of Wichita, read a paper on "Visceroprosis, and Some of the Methods of Preventing the Acquired Type."

The November meeting was omitted so members could attend District meeting at Dodge City.

The annual social meeting was held at the Great Bend Country Club for the entertainment of our wives. The banquet, orchestra music, esthetic dancing, monologues read by Dr. Morrison, impersonation of Santa Claus by Dr. Russell, and impersonation of the negro butler by Dr. Zugg, and toasts to our wives by Dr. Embry, and by Dr. Kendall, toastmaster and president, were entertaining and good indeed.

We started the New Year with a "whiz" by

having Dr. G. Howard Plank of Chicago lecture on "Electro-coagulation and Actinic Rays." Dr. W. S. Grisell of Ransom read a paper on "The Referred Patient from the General Practitioners Point of View." Dinner was served at the Home Cafe after which Dr. Hugh Wilkinson, surgeon of Kansas City, Kansas, lectured on "Why Some Hernioplasties Fail," and gave an interesting and practical discussion of some experimental work done on dogs by Major Gabriel Seelis of St. Louis, in his efforts to get muscle to unite with fascia and tendons. Lantern slides were used to illustrate this work. Several of those present discussed the paper. Dr. E. E. Morrison discussed the paper and told of some of his early experiences with hernias, saying he thought he did the first operation of this sort done in Barton county, although there had been a previous case of strangulated hernia at Claflin where the physicians had anaesthetized a patient with strangulated hernia preparatory to operating when the hernia slipped back into the abdominal cavity, hence the operation was not performed. Dr. Frank Lightfoot of Great Bend, then arose and claimed the honor of having done the first hernia operation in Stafford county, or rather the first one done by a Barton county physician. His description of this emergency operation for strangulated hernia was very amusing as the Doctor told of the crowded unsanitary conditions in the "Dug-Out," where it was done with a farmer as assistant and a "slop" bucket to bring water to soak sponges in etc. The Doctor said if he had known of germs as he does now he would have been "scared to death." He told the patient he had never done such an operation and had only seen a couple of them but that there was no one within reach who knew any more about it than he did. So the patient consented. In describing the operation, he said that he "sewed up everything that looked like it needed sewing." He says he does not know what operation this would have been called. Other humorous sidelights were thrown in which made the Doctor's remarks quite interesting. He said "the wound healed well, and patient lived ten years longer, although there was a recurrence, so the operation did not kill the patient anyway." All jokes aside, the Doctor deserves a great deal of credit for using his nerve, and doing what had to be done to save his patient's life. He could not get anyone who had more experience in surgery than he, soon enough to do any good as this was before the day of telephones, automobiles, etc. This serves to remind us how much respect we owe these old pioneers of the early days.

LEROY J. WHEELER, M.D., Secy.

STAFFORD COUNTY SOCIETY

Society met in St. John the second Wednesday in January at 3:00 p. m. Members present: J. J. Tretbar, F. W. Tretbar, T. W. Scott, Stafford; M. M. Hart, Macksville; C. S. Adams, J. T. Scott, St. John. Dr. J. J. Tretbar, the newly elected president, read a paper on Cholelithiasis in which he presented the modern views concerning the etiology of gall stone formation. He states that nearly all cases show an increased cholesterol content on blood examination. Under such circumstances an interference with gall bladder drainage is likely to be accompanied by gall stone formation. Particularly is this true where more or less remote foci of infection exist. The pathogenic germs may gain entrance to the gall bladder either via the alimentary canal or through the general circulation. Treatment is essentially preventive and consists in the use of means to insure a normal condition of the body metabolism. After formation, stones that do not pass spontaneously, are to be removed surgically. The latter procedure, however, should never be a matter of haste, save in those cases of acute jaundice, great pain or evidences of impending rupture.

At the regular February meeting on the afternoon of the second Wednesday, Dr. C. S. Adams, St. John, will read a paper on Focal Infections.

J. T. SCOTT, Sec.

SHAWNEE COUNTY SOCIETY

The monthly meeting of the Shawnee County Medical Society was held Monday evening, January 7.

Dr. Ottos Henry Schwarz, professor of obstetrics at Washington University, presented two excellently prepared papers. The first, Endometrical Tumors of the Ovary with lantern slides. The second was Pernicious Vomiting of Pregnancy.

EARLE G. BROWN, Secy.

MEADE-SEWARD SOCIETY

The quarterly meeting of the Meade-Seward County Medical Society was held in Liberal on January 10th with the following members present: Drs. W. F. Fee and C. B. Lesley of Meade; Drs. Smith, Morrow, Hudleston, Day Winters, Trekel and Messersmith of Liberal.

Election of officers resulted in the following: Dr. Geo. S. Smith, Liberal, President; C. B. Lesley, Meade, Vice-President; and J. W. Messersmith, Liberal, Secretary-Treasurer.

The next meeting of the Society will be held in Meade the first Thursday in April. Dr. Winters will read a paper, also Dr. Lesley

and Dr. Davis of Plains, the subjects to be announced later.

J. W. MESSERSMITH, Secy.

CLAY COUNTY SOCIETY

The Clay County Medical Society met at Dr. Olsen's office in Clay Center, January 16, 1924, at 8:00 p. m. The following officers were elected: President, Dr. E. N. Martin; Vice-President, Dr. G. W. Bale; Secretary, Dr. C. E. Earnest; Treasurer, Dr. X. Olsen, all of Clay Center; Delegate to the State Society, Dr. C. E. Earnest.

Dr. Nesselrode of Kansas City, Kansas, spoke on "Thyroid—Symptoms and Treatment." The subject was ably handled and most interesting to all present.

Dr. C. E. EARNEST, Sec.

TRI-COUNTY SOCIETY

The Tri-County Medical Society met Thursday, January 31, 1924, at Wellington, Kansas. Clinics were held at the Hospital during the morning from 9:30 to 11:30, followed by a stag dinner at the Community Park House. The program was given directly after dinner. Papers were read as follows:

"Gastric Ulcer," Dr. E. F. Day, Arkansas City.

"Surgery of the Intestinal Tract," with special reference to Cancer of the lower bowel. Dr. Carl V. Davis, Professor Surgery, Rush Medical College.

"The Early Diagnosis and Treatment of Cancer," Dr. S. E. Lain, Oklahoma City, Okla.

"Abnormal Modification of Tone of the Gastro-Intestinal Tract," Dr. P. T. Bohan, Diagnostician, Bell Memorial Hospital, Kansas University.

"The Early Treatment of Diabetes," Dr. John L. Caline, Wellington.

COFFEY COUNTY SOCIETY

The Coffey County Medical Society met January 19, in Burlington, and after a "feed" at 6:30 p. m. adjourned to Dr. Gray's office where the meeting took place. In the absence of our president Dr. J. C. Fear, the vice-president, Dr. H. T. Salisbury, took charge and the usual business was attended to and the old officers re-elected.

Dr. M. O. Nyberg, Secretary of the State Board of Health, was introduced by the chairman. Dr. Nyberg read a very interesting and instructive paper on Public Health Problems—especially the Relation of the Health Officer to Public Health Problems and Physicians. After a short discussion Dr. Nyberg was excused as he had a 65 mile ride over bad roads to get home that night.

Case reports, discussions on various cults, Abram's method of farce, etc., were held, after which dues for 1924 were collected and the next meeting set for April.

A. B. McCONNELL, M.D., Secy.

LINCOLN COUNTY SOCIETY

A special meeting of the Lincoln County Medical Society was held Thursday, January 31, and the following officers were elected for the coming year: President, Dr. H. L. Hinkley of Barnard; Vice President, Dr. A. L. Lemon of Sylvan Grove; Secretary, Dr. Malcolm Newlon of Lincoln. There was good attendance and the program for the coming year was outlined and discussed. It is planned, if possible, to hold one or more joint meetings with surrounding societies this year, in the belief that better programs can be arranged. Also to take advantage of the offer extended by the University of Kansas Medical School to assist in the programs.

Three new members were voted into the society, Dr. A. L. Lemon and Dr. Foster L. Dennis of Sylvan Grove, and Dr. Edwin Peterson of Barnard.

MALCOLM NEWLON, Secy.

DOUGLAS COUNTY SOCIETY

At the annual meeting of the Douglas County Medical Society held at Lawrence, Kansas, January 3, 1924, the following officers were elected: President, W. O. Nelson; Vice-President, H. T. Jones; Secretary, E. P. Sisson; Treasurer, E. B. Owens; Delegate to State Convention, H. L. Chambers.

Very sincerely,

EUGENE P. SISSON, Secy.

PAWNEE COUNTY SOCIETY

The annual meeting of the Pawnee County Medical Society was held at Larned, Thursday night, January 24. The Society met at the State Hospital for the Insane as the guests of the Superintendent, Dr. Hughes. Drs. Hughes, Hummicht, and Newman, members of the staff, gave an interesting clinical program, showing cases to illustrate different phases of mental aberration, and Dr. Carmichael, Superintendent of the Osawatimie Hospital, as special guest, delivered an especially well written paper on Albuminuria. Following the regular program an excellent lunch was served under the supervision of Mrs. Hughes, and an hour of social levity was enjoyed. Dr. Morrison, of Great Bend, gave a clever Will Rogers monologue along medical lines, and other stunts were put on to add to the jollity of the occasion. Dr. Hughes has assumed his duties at the State Hospital with energy and enthusiasm, and has evinced a sincere desire to co-operate with

the physicians of this part of the state. He invites them to call and be shown through the institution at any and all times. We feel that meetings of this kind, held in our state institutions, may be of much benefit. It creates a feeling of interest and ownership throughout the profession that is bound to react to the good of both profession and hospital. And it certainly is gratifying to the medical men in charge, who are attempting to modernize Kansas eleemosynary institutions, to feel that the ethical profession is interested and backing them up.

The following were in attendance: Drs. Morrison, Zugg, Russell, Kendall, Embree, Button, of Great Bend; Brown, Pennington, McGill, of Hoisington; Haas, Ellinwood; Bondurant, Pawnee Rock; Burnett, Garfield; Tapscott, Rozel; Boyd, Belpre; Carmichael, Osawatomie; Sheppard, Ewing, Seiple, Reed, Dillon, Hughes, Hunnicutt, Newman, Larned. Owing to the lateness of the hour the election of officers was postponed to an adjourned meeting.

J. A. DILLON, Secy.

ANDERSON COUNTY SOCIETY

The Anderson County Medical Society met at Garnett, December 18, 1923, and elected the following officers for the year 1924: Dr. J. A. Settle, President, Westphalia; Dr. T. A. Hood, Garnett, Vice-President; Dr. J. A. Milligan, Garnett, Secretary; Dr. A. J. Turner, Garnett, Treasurer; Dr. E. T. Metcalf, Colony; Dr. W. K. Johnson, Garnett; Dr. C. A. Forsythe, Kincaid, Board of Censors.

I am very truly,

J. A. MILLIGAN, Secy.

LABETTE COUNTY SOCIETY

The regular meeting of the Labette County Medical Society was held in Parsons, Kansas, in the Chamber of Commerce rooms, the night of January 23, with a good crowd present, considering the bad weather and roads—twenty-one doctors being there.

We were entertained in a very pleasing and instructive manner by Dr. C. B. Francisco of Kansas City, Missouri. The doctor chose for his subject, "The Management of Fractures." We were all much interested in the subject, the doctor gave us some new ideas and refreshed our minds in many other respects concerning the subject. We all had a good time and Dr. Francisco is welcome in Labette County anytime, the latch string is always out for him.

The Society expects to have a big meeting February 20, 1924, in the same place, with Dr. P. T. Bohan of Kansas City as the instructor for the evening.

It is with much sorrow and grief we have

to announce at this time the death of our dear brother, Dr. Kimball R. Scott, who was our president the past year. His absence in our midst cannot be filled. His example will ever be in our memory. We have all been better because of his presence among us. His motto in life was that of Abou Ben Adam—"I love my fellow men." We all extend our sympathies to and share with the family in their deep sorrow.

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D. R. WILSON, Secy.

Dr. Kimball R. Scott was born in Gibson City, Illinois, August 5th, 1878. His parents moved to Cherryvale, Kansas, when he was four years of age and there he spent his boyhood. Later he went to Chicago and worked his way through Medical College and was graduated from the Chicago College of Medicine and Surgery in 1905.

He later graduated from the Genner School of Medicine and Surgery and from the Chicago Post-Graduate Medical College.

After finishing his schooling he moved to Chetopa and began the practice of his profession. After a residence at Chetopa of nine years he moved to Parsons where he has lived the past seven years. He has been ill for two years but was unable to practice his profession only since last June. Dr. Scott died at his late home, 2726 Main Street, Parsons, Kansas, Wednesday, Jan. 23, at 11:45 p. m.

He is survived by his wife, Mrs. Nettie O'Toole Scott, to whom he was married March 10, 1914, at Chetopa, Kansas, and by his parents, Mr. and Mrs. M. W. Scott, two brothers, Oris and Joseph Scott, and the sister, Mrs. John Ostrander, all of Cherryvale. These with a large circle of friends and associates of his profession are left to mourn his departure.

"I cannot say, I will not say

That he is dead—he is just away!

With a cheery smile, and a wave of the hand,
He has wandered into an unknown land.

And left us dreaming how very fair
It needs must be, since he lingers there.

And you—O you—, who the wildest yearn
For the old time step and the glad return.

Think of him faring on, as dear
In the love of There as the love of Here

Think of him still the same, I say
He is not dead—he is just away."

—Riley.

WILSON COUNTY SOCIETY

The Wilson County Medical Society met at Fredonia, the evening of December 10, at

6:30, supper at Loether Hotel, and later met at the Commercial Club rooms.

Election of officers resulted as follows: President, Dr. A. C. Flack; Vice-President, Dr. W. H. Addington; Secretary-Treasurer, Dr. E. C. Duncan. The president appointed Drs. Wiley, Moorhead, Sharpe as Censors; Drs. Duncan, Butin and Sharpe as the program committee; and on motion appointed Drs. Wiley, Moorhead, Young, as a committee to see about the new county farm buildings.

Dr. M. O. Nyberg, Secretary State Board of Health, being the honored guest of the Society and the speaker of the evening, was introduced and gave us a most excellent paper, which the Society voted to have sent to the State Journal for publication.

The January meeting of the Society was held at Neodesha, January 14. A very interesting meeting was held with 13 members present. Cases were reported and discussed. A motion to have the retiring president read a paper at the State meeting was carried. Dr. Sharpe, retiring president, is to present the paper at the annual meeting in May. He was also elected delegate. This custom is to be continued each year. The Secretary was instructed to communicate with the A. M. A. and find out the reliability of the different agencies collecting money for the destitute German physicians, and if they are all right, this Society will contribute.

E. C. DUNCAN, Secy.

—R—

PERSONAL

Dr. J. H. Cooper has been appointed by the receiver to superintend the Uhls Sanitarium at Overland Park.

Dr. H. A. Lindsay, recently assistant superintendent of the State Hospital at Topeka, is superintendent of Pimton Sanitarium, Kansas City.

According to information received Dr. R. D. Grayson, of Topeka, has purchased property in Olathe and will enter practice there soon.

Dr. D. W. Manson, Burlington, Kansas, spent his vacation this fall by driving down into old Mexico for a month or so and he has some interesting tales to tell both of Mexico and of his trip en route, being pulled up the mountains by Mexican cow boys with a rope from car to saddle horn and having many other interesting and unusual experiences.

—R—

DEATHS

Dr. I. J. Maggard, Wichita, aged 82, a Civil War veteran and a pioneer physician of Kan-

sas, died February 3, 1924. He was graduated from the Missouri Medical College, St. Louis, in 1877. He was formerly a member of the Kansas Medical Society. He retired from active practice in 1912.

John M. Hunt, M.D., Wellington, Kansas, died January 18th, 1924, at the age of 85. Dr. Hunt was born in Tennessee and graduated from the St. Louis Medical College in 1877. He located in Wellington in 1883 and continued in practice there until the commencement of his fatal illness. He was the second president of the Sumner County Medical Society, in 1906, but dropped out of the organization some years ago.

Dr. Kimball R. Scott, Parsons, aged 42, died January 23, 1924, after a lingering illness. He was graduated from the Chicago College of Medicine and Surgery in 1905. He was a member of the Kansas Medical Society.

—R—

BOOKS

International Clinics, a quarterly of Illustrated Clinical Lectures and especially prepared original articles. Edited by Henry W. Cathell, M.D., with numerous collaborators. Vol. III, thirty-third series. Published by J. B. Lippincott Company, Philadelphia and London.

This volume of the Clinics is of particular interest, especially to the general practitioner since the articles are of greater practical value to him than to the specialist. The papers are carefully prepared and are unusually instructive.

Blood Chemistry Colorimetric Methods for the general practitioner with clinical comments and dietary suggestions by Willard J. Stone, M.D. Published by Paul B. Hoeber, Inc., New York.

Every one interested in blood chemistry and whether one does the analysis himself or not should know something of the methods used. The methods described by Stone are generally accepted as the most practical and reliable. A work of this kind is indispensable to the modern practitioner.

Diathermy and its Application to Pneumonia by Harry Eaton Stewart, M.D., attending specialist in Physiotherapy, U. S. Marine Hospital, New York, etc. Published by Paul B. Hoeber, Inc., New York. Price, \$3.00.

The author presents first a description or explanation of diathermy, how applied, and an analysis of the effects of the current on the body tissues. He relates his experience in the treatment of pneumonia, giving complete case histories and tabulated results. The results in many of his cases are dramatic and the total result is sufficiently encouraging to justify much further investigation. Certainly the members of the profession should famil-

iarize themselves with the use of an agent which seems to promise so much.

Rhus Dermatitis, Its Pathology and Chemotherapy by James B. McNair. Published by the University of Chicago Press, Chicago.

The author gives the history and distribution of rhus and its morphology and anatomy. He describes the transmission of the poison from plant to person and the chemistry of the poisonous principle. The pathology of the dermatitis, remedies used, immunity, chemotherapy and treatment are discussed in detail.

Alcohol and Prohibition, in Their Relation to Civilization and the Art of Living by Victor G. Vecki, M.D. Published by J. B. Lippincott Company, Philadelphia and London.

The author of this little book has had the courage to present what seems to be facts concerning alcohol and the effects of the prohibitory laws. A considerable part of the book is taken up with quotations from various medical men of national reputation concerning the remedial value of alcohol, and other quotations from various newspapers concerning the enforcement of the Volstead Act. It is interesting and convincing, if one is not too prejudiced in his views.

Chemistry for Nurses, A Text Book. Fredus N. Peters, A.M., PH.D., Prof. of Chemistry, Kansas City Dental College, etc. Second edition. Published by C. V. Mosby Co., St. Louis. Price \$2.50.

This is a very simplified text on chemistry not particularly adapted to the needs of nurses, rather more suitable for the instruction of high school classes. It very nicely meets the requirements for many courses in which some general knowledge of chemistry is demanded.

Orthopedic Surgery by Royal Whitman, M.D., Surgeon to the Hospital for Ruptured and Crippled, etc., etc., New York. Seventh edition. Published by Lea & Febiger, Philadelphia and New York. Price \$9.00.

The fact that orthopedics has become a specialty is due to the special skill required and the great amount of time absorbed. Special treatises on the subject are therefore presented from the specialist's viewpoint. The author has, however, endeavored to present for the benefit of the general practitioner the methods of examination and the evidences that lead to early diagnosis. A considerable part of the book is given to special deformities and the special methods for their correction.

Local Anesthesia and Its Surgical Technic by Robert Emmett Farr, M.D. Published by Lea and Febiger, New York. Price \$8.00.

The author presents views developed from his own observations and experience, concerning the advantages of local anesthesia. He describes in detail the method of administra-

tion and the operative technic employed. The author points out the surgical technic best adapted for use with local anesthesia. Very excellent illustrations clarify the text and numerous case reports help to strengthen the claims made.

—R—

Spahlinger Treatment for Tuberculosis

Spahlinger is a resident of Geneva who received medical training but took his degree in law. Later he abandoned law for research work. The Spahlinger treatment makes use of vaccine and serum therapy. The theories from which the treatment is evolved is that the tubercle bacillus emits different toxins under varying conditions of temperature, environment, etc. Many of these are claimed to be isolated as either exotoxins or endotoxins. The vaccines—of which there are said to be about twenty—are used for prophylaxis for treatment of the milder cases of tuberculosis and for the production of the various serums used in the treatment of the more severe cases. It has been reported that the British ministry of health is prepared to encourage the experimental trial of the Spahlinger preparations under scientific supervision. The British Red Cross has appropriated money to enable Spahlinger to work on a larger scale in the production of his preparations. The reports in regard to the efficacy of the preparations which have appeared in British medical journals are conflicting, and the Red Cross organization has made it clear that the products are in the experimental stage. (Jr. A. M. A., Dec. 1, '23.)

—R—

Influence of Ultraviolet Irradiation on Calcium Content of Blood Serum

A study was made by Frank J. Novak, Jr., and Abraham R. Hollender. Chicago (Journal A. M. A., Dec. 15, 1923), of the calcium content of human blood serum in hay-fever, hyperesthetic rhinitis and the asthmas, the effect of calcium, thyroid and combined calcium-thyroid therapy in hay-fever, hyperesthetic rhinitis, and the asthmas, and of the influence of the mercury vapor quartz lamp (ultraviolet ray) in fixing the calcium content of the blood serum. They found that the ionic calcium content of the blood serum is invariably low in hyperesthetic rhinitis. There are also certain cases of hay-fever and asthma which show a low calcium content. Calcium alone does not influence these conditions.

Calcium lactate combined with thyroid extract affords temporary relief in all cases of hyperesthetic rhinitis and in some cases of hay-fever and bronchial asthma. Exposures to the mercury vapor quartz light, together

with the combined calcium-thyroid therapy, appears to fix permanently the ionic calcium content of the blood serum.

—————R—————

The Transmission of Arsenic From Mother To Fetus

Rabbits and cats were injected with neosphenamine, intravenously by Frank P. Underhill and Frank G. Amatruda, New Haven, Conn. (*Journal A. M. A.*, Dec. 15, 1923). After the desired number of injections had been given, the animals were killed. The tissues to be examined for arsenic were oxidized by Gautier's method as simplified by Johnson and Chittenden. The method for examining quantitatively the arsenic in the tissues was that of Gutzeit as modified by Sanger and Black. The maternal, fetal and placental tissues were examined for the presence of arsenic after the animals had received a varying number of injections. In practically every case, traces of arsenic were detected in the fetal tissues. The amount of arsenic obtained from the fetal tissues was never more than a trace, regardless of the number of serial injections received by the animal. On the other hand, examination of the maternal liver had placenta shows that the amount of arsenic recovered from them increases with the number of serial injections the animal had received. From the results obtained there is little doubt that arsenic is stored up in the placenta and maternal liver after serial injections, as contrasted with the fetal tissues.

—————R—————

Treatment of Pertussis With Intramuscular Injection of Ether

Cleon C. Mason, Long Beach, Cali., (*Journal A. M. A.*, Dec. 22, 1923), presents a preliminary report of twenty-six cases of pertussis treated by the deep intramuscular injection of ether as described by Genoese. Of the twenty-six patients, with ages ranging from 6 months to 8 years, sixteen stopped coughing after eight injections and did not cough again: six were definitely benefited, i. e., the paroxysms became less frequent and less severe, and in four cases the course of the disease was not altered in any way. Of the sixteen patients in whom the cough stopped, none had whooped to exceed four days, six had whooped for the first time on the day the treatment was instituted, and the other ten had whooped from two to four days. Of the six patients definitely benefited two had vomited but had not whooped (later both of these patients developed a mild whoop), and the other four had been whooping for from four to seven days. Of the four not bene-

fited, one had never whooped, but proceeded to develop a severe attack which massive doses of opiates did not alleviate; the other three had been whooping more than seven days. The ether injections were made with a long, fine platinum needle, deep into the buttocks. Commercial anesthesia ether was used. The dosages used were: First day, 0.5 c.c., two injections; second day, 1 c.c., two injections; third day, 1.5 c.c., two injections; fourth day, 2 c.c., two injections; fifth day, 2 c.c., one injection; each day thereafter, the same amount as on the fifth day. These dosages were slightly reduced for children under one year. The injections did not seem especially painful. Within thirty minutes after the injection there was a decided odor of ether on the child's breath, which usually persisted for three to six hours. Several specimens of urine, collected at hourly intervals after the injection, were examined, but in no instance were the acetone bodies found. Four additional cases were treated by the high rectal injections of 6 c.c. of a 40 per cent ether solution in olive oil. The injections were repeated every six hours. Two of these patients stopped coughing quite promptly, and two failed to respond. This method was employed in order that the treatment might be carried out at home.

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A Simple Method of Approximating the Proper Ration for a Diabetic Patient

J. H. Kellogg, Battle Creek, Mich. (*Journal A. M. A.*, Sept. 8, 1923), has prepared a table by the use of which laborious calculations may be saved. The table presents several hundred daily rations which have been calculated for different degrees of sugar tolerance, from 200 gm. to 10 gm., and for different quantities of protein varying from 80 gm. to 10 gm. The basis of the calculations by which the figures have been arrived at is to be found in the following well known facts which have been established by modern metabolism studies: 1. One gram of carbohydrate will suffice for the burning of from 1.2-3 to 3 or 4 gm. of fat. The lower figure is very conservative. 2. Protein is ketogenic to the extent of 46 per cent of its weight, the equivalent of 51 per cent of fat. 3. Protein, when metabolized, yields 58 per cent of its weight of carbohydrate. 4. Fat, when metabolized, yields 10 per cent of its weight of carbohydrate (glycerol). With the patient's sugar tolerance known, it is easy to calculate a diet that will supply such quantities of protein, carbohydrate and fat as the patient should be able to utilize without the appearance of sugar in the urine and without the production of acidosis.

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Intra-abdominal Examination by the Aid of of the Peritoneoscope

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Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

Since the introduction of trans-abdominal pneumoperitoneum into this country by Stewart and Stein¹ in 1919, and the later publication of Rubin's method of intrauterine abdominal insufflation, the injection of oxygen, carbon dioxide gas and air into the peritoneal cavity, for diagnostic and therapeutic purposes, has been adopted by many different men. A review of the recent literature on this subject indicates that pneumoperitoneum is generally considered a valuable aid in roentgen ray examinations and a comparatively safe procedure in properly selected cases.

Recently I became interested in the possibility of introducing a naso-pharyngoscope through the abdominal wall into an inflated peritoneal cavity, under local anesthesia, by means of a trocar and cannula, for the direct examination of the abdominal viscera. Investigation revealed the fact that this procedure has been used in Europe since 1913 and that one paper was published on the subject in America in 1920 by Dr. B. H. Orndorff².

Peritoneoscopy, or as it was formerly called, laparoscopy, was first done on animals with cystoscopes and naso-pharyngoscopes. Jacobaeus, of Stockholm, devised a thoracoscope and then a modification of this for abdominal work. Renon³ of Paris, in 1913, described a technic of peritoneoscopy and stated that up to that time Jacobaeus had treated 109 cases and made 69 diagnoses by this method. Renon considered it especially indicated in hepatic and peritoneal diseases. Orndorff in 1920 published his technic for peritoneoscopic examination and described the appearance of various surfaces in normal and pathological states. He mentioned elevating the hips for examination of pelvic organs and vaginal palpation of pelvic organs as an aid in determining the identity of the structures in view. He also mentioned transillumination of the abdominal wall and observation of the posterior wall of the bladder when transilluminated by means of a cystoscope in the bladder. He told of having used the peritoneoscope in 48 cases. Rocavilla⁴, in 1920, using the

Jacobaeus apparatus in connection with fluoroscopic examinations reported the following six cases in which the peritoneoscopic diagnoses were especially significant:

Case 1. Was apparently common cirrhosis with ascites. The peritoneoscope revealed small metastatic nodes in the epigastrium. This led to a diagnosis of neoplasm and latent gastric carcinoma was found.

Case 2. Tuberculous peritonitis was suspected. The peritoneoscope showed neoplastic infiltration of the peritoneum.

Case 3. Persistent hemorrhagic ascites could not be diagnosed. The peritoneoscope showed adeno-carcinoma with ulceration in the uterus.

Case 4. Seemed to call for diagnosis of obstruction of the bile duct. The peritoneoscope revealed neoplasm of the ampulla of Vater.

Case 5. Was similar. A neoplasm was found on the greater curvature of the stomach in the pre-pyloric region.

Case 6. Suffered from gastric symptoms and hypochlorhydria. By the peritoneoscope a tumor at the hepatic angle of the colon was diagnosed.

It is evident that in these six cases cited by Rocavilla, the peritoneoscope enabled him to determine the diagnoses with an exactitude otherwise impossible without resorting to laparotomy.

My own experience with this instrument so far has been limited to experimental work on dogs. The object of this work has been to develop a technic for safely inserting into the peritoneal cavity a peritoneoscope of the smallest feasible caliber and to determine the facility with which the viscera can thereby be observed.

INSTRUMENTS USED

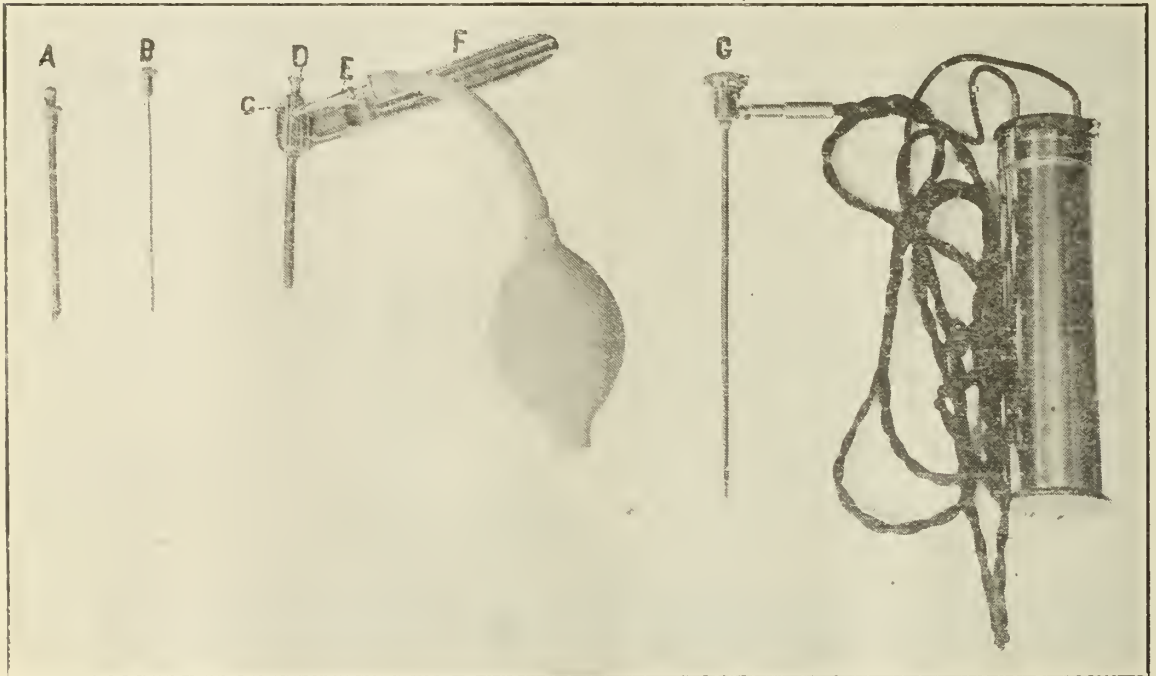
For producing pneumoperitoneum, air has been selected in preference to carbon dioxide. While the latter is rapidly absorbed, its use involves more complicated apparatus and is uncalled for since the technic used allows of easy and complete deflation after the examination is completed. For introducing the air, I have found an ordinary atomizer bulb with tube and luer adapter, entirely satisfactory. This can be sterilized in alcohol. A compressed air tank or potain pump may be

used if desired. In using the bulb, no air filter is necessary.

For a peritoneoscope I at first used a Holmes naso-pharyngoscope. This has a gauge 12 French barrel, $4\frac{1}{2}$ inches in length, shows a corrected image through a universal focus lens system and at a distance of $11\frac{1}{2}$ inches from the object, shows at life size a visual field about the size of a half dollar. There has recently been perfected* a similar instrument with a longer lens system which allows exploration of a circular area 12 inches in diameter.

The cannula used is $21\frac{1}{2}$ inches long with a

Considering the ordinary type of trocar unsuited for peritoneal puncture, I also devised a special type of trocar with one elliptical beveled surface, on the order of an enlarged lumbar puncture needle. The point presents a 37 degree angle. While this is sharp enough to penetrate the abdominal wall after an incision has been made through the skin, it could hardly injure any intestines unless they were adherent to the parietal peritoneum at the site of the puncture. Through a lumen in the trocar there fits a small stylus. When making a puncture into the inflated abdominal cavity, by withdrawing the stylus and



A. Trocar. B. Stylus of trocar. C. Adjustable cap over rubber gasket in cannula. D. Thumb valve for control of air pressure. E. Air intake. F. Handle of cannula. G. Peritoneoscope with 6-inch tube, 12 F gauge. (Made by Boehm Surgical Instrument Corporation.)

3-16 inch outside diameter. This allows a slight air space around the barrel of the peritoneoscope. It has a four inch handle and at the outer end a rubber gasket, held by a screw cap, fits snugly against the peritoneoscope, preventing escape of air during examination. There is also an air connection on the side of the cannula to allow of further inflation or deflation while the examination is in progress without changing the position of the peritoneoscope. Inflation or deflation are regulated by pressure on a thumb valve situated in the air connection. This connection will take the huer adapter on the atomizer bulb, but can be connected to a rubber hose from a pressure tank if desired. The valve is all metal and is not affected by boiling.

watching for escape of air, it is possible to tell when the cavity has been entered.

So far as can be ascertained, the trocar and cannula here presented are original.

TECHNIC

Strict surgical asepsis must be observed until the peritoneoscope has been inserted. The peritoneoscope is sterilized in formalin vapors, the bulb in alcohol and the other instruments by boiling or steam pressure. The abdomen is prepared as for laparotomy. While my experiments have been conducted upon anesthetized dogs, the technic is adapted for use in adults with local anesthesia, in which case it will be noted that the local anesthesia must be carried down to the parietal peritoneum. The site selected for puncture should be over soft, elastic, airfilled loops of small

*This 6-inch instrument devised by Boehm Surgical Instrument Corporation.

intestines near the region to be examined and preferably over a rectus muscle. A lumbar puncture needle is inserted through the abdominal wall until the peritoneum has been punctured. This is readily recognized after one puncture has been made. Air is then injected by attaching the bulb to the needle. As noted by Sante⁵ the entrance of air into the cavity is easily detected by placing a stethoscope over a distant part of the abdomen. Air is injected until the abdomen is tympanitic throughout and slightly rounded. A quarter inch incision is made in the skin and the trocar and cannula are forced into the cavity, the stylus of the trocar being withdrawn as necessary to detect penetration by escape of air. The trocar is then withdrawn and the left thumb held over the opening in the cannula until the lighted peritoneoscope has been inserted. Both trocar peritoneoscope are lubricated with sterile glycerine. Any air lost during the insertion of the peritoneoscope may be replaced through the air connection on the cannula, and the intra-abdominal examination may now proceed.

It will be noted at this point that peritoneoscopy is of value chiefly in connection with routine roentgenological examination and clinically should be performed on the fluoroscopic table. The insertion of the trocar and the position of the peritoneoscope and the organs under observation can from time to time be noted by the fluoroscope. Examination of the upper abdomen is aided by elevating the head and elevating the hips allows fair observation of the pelvic organs except in the presence of adhesions. Identification of pelvic organs can also be aided by vaginal or rectal palpation.

The examination completed, the peritoneoscope is withdrawn, allowing complete deflation through the cannula. The cannula is then withdrawn and slight massage of the muscles quickly obliterated the tract of the cannula. In dogs the skin wound was covered with collodion and healed quickly. In human subjects a gauze dressing is applied. No suturing of the wound is necessary. In dogs autopsied or re-peritoneoscoped after a previous examination, the peritoneum at the site of the first puncture was found to be healed over smoothly without any adhesions.

RESULTS

Owing to the limited time at my disposal, I have only a series of 14 punctures on dogs to report, in three of which the animals were sacrificed at the time to check up on the peritoneoscopic findings. In no cases were any viscera injured by the procedure and in those dogs run through a second time there were no evidences of adhesions resulting from the

first examination. In from two to three hours after coming out of the anesthetic the dogs seemed as active and hungry as before the examination.

The liver, spleen, stomach and pelvic organs were easiest to recognize and describe. In one case an early pregnancy was readily diagnosed. In no case could the appendix be located and in dogs, for anatomical reasons, only a small portion of the gall bladder could be seen.

The diagnoses of Jacobaeus, Roccavilla and Orndorff, covering a variety of pathological conditions in the liver, gall bladder, ampulla of Vater, stomach, colon, spleen, mesentery, peritoneum, uterus and adnexa, indicate a wide field of usefulness for the peritoneoscopy. It is contraindicated in the presence of acute peritonitis and in cases of impaired cardiac action. While this method of diagnosis is chiefly adapted for use in hospitals, in connection with roentgenologic examination, it should not, of itself, entail any prolonged hospitalization of the patient. In emergency cases, such as suspected rupture of a tubal pregnancy, internal bleeding from trauma, volvulus, or intussusception it could very properly be employed in the home if no hospital were available. Orndorff also reports that in cases where post-operative hemorrhage has been suspected, the peritoneoscope has been inserted through the incision with very little discomfort to the patient.

CONCLUSIONS

1. Intra-abdominal examination may be conducted under local anesthesia by this technique of peritoneoscopy with comparatively slight risk or discomfort to the patient in properly selected cases.

2. Peritoneoscopy is only a slightly more drastic procedure than the induction of trans-abdominal pneumoperitoneum and is applicable to any case where the latter is not contraindicated.

3. The peritoneoscope affords a means of arriving at a more exact diagnosis in certain cases of obscure abdominal pathology than is otherwise possible without resorting to exploratory laparotomy.

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KEY TO PHOTOGRAPH

- a. Trocar, 12 French, with 37 degree point and lumen for stylus.
- b. Stylus of trocar.

- c. Air connection of cannula for luer adapter or nose connection.
- d. Thumb pressure valve, all metal, (controlling inflation and deflation).
- e. Screw cap holding rubber gastek in position.
- f. 4-inch handle on cannule.
- g. Smaller size peritoneoscope (4½ inch) with cord and battery.

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The Woman-Child Problem from an Economic Standpoint

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Read at Annual Meeting of the Kansas Medical Society, Kansas City, May 2, 1923.

That the woman-child presents a great economic problem is a self-evident fact when we consider her frequently recurring disabilities as she approaches, enters and passes through her various stages of development. These disabilities range all the way from a slight indisposition to total disability.

Considering the great number of women dependent upon their own efforts for a livelihood, from a purely economic standpoint we should study out causes and effects in order to arrive at something more substantial and definite when called upon to relieve their distresses than to tell them that *their troubles will probably be righted by marriage and childbearing.*

The girl whose mechanical difficulties and imperfections unfit her for a business position will serve as a poor foundation upon which to construct a home, which she finds to her sorrow later on.

Whether the girl is destined to occupy a place in the home as wife and mother, or whether she enters the business world as a component part of its machinery, in either case it is very essential that she be as nearly mechanically perfect as possible, in order that she be able to perform her part for the universal good. Otherwise, she soon drops out of the running and becomes incapacitated and hampered—either a nervous, ailing wife and mother, or a broken-down business machine.

Industries of all sorts are dependent upon the vital strength, durability and perfect working of the machinery used in fostering and promoting them. If any part of a machine is found to be defective or easily disabled and put out of commission, it would hardly be the part of wisdom to continue operating without such a defect being uncovered and corrected, instead of trusting to luck or some slight tinkering or general repairs from time to time. Every working part is tested and proven to be fitted for its especial purpose; for in this way only can the highest degree of efficiency be generated and continued.

Millions of dollars are spent annually in testing and proving new and improved ma-

chinery so that the output of factories may be increased and commerce shall not suffer—and we are told that our race is actually deteriorating, running low, and the time is not far distant when another and stronger one will supplant us—and what are we doing to avoid this possibility?

That there is some physical reason for this state of affairs is evident when we consider one of the great potential factors of our race—the delicate and painfully developing girl.

Why should not the same intelligent care be bestowed upon the human machine to the end that the race be improved and increased instead of limiting its output? (As a rule, nowadays, the family income proposition has more to do in regulating the number of children desired than does any race problem.)

In our child welfare study we should begin with the condition of the soil in which the seed is planted. We must study the state of the mother as the first great vital factor in child welfare. Later on, each female child should be considered and developed as a potential mother of the future, as she passes through the various life stages from infancy onward.

The woman-child should be developed according to her needs. If hygienic conditions have been existent from birth, and intelligent care has been exercised, the chances are that she will pass from one developmental stage to the next with little disturbance attending throughout. In this connection mothers should be properly instructed in all these natural changes incident to development and growth, thus becoming the natural and intelligent teachers of their girls, gradually initiating them into the mysteries of life—so essential in the conservation of health and general well being.

There are many foes to the human race—from without and within—which are sapping its vitality; and notwithstanding our manifold scientific researches and discoveries along various lines, statistics go to show that many of the scourges of mankind are appallingly on the increase. This apparent increase may be reasonably accounted for when we consider our past ignorance of the nature of many of these scourges with our present broader knowledge and ability to recognize them.

So many deplore the fact that the girls of today are more delicate and weaker in every way than were their mothers and grandmothers. (The endurance tests now being staged by dancers would put to shame the physical powers of their grandmothers—or even their brothers. These tests may be the means of opening up a new era in physical prowess for women—who knows?)

The girls of this generation are being developed and educated along different lines and in different channels than were their mothers and grandmothers. So diversified and complex have their activities become, with incident wear and tear—not much wonder fears are entertained for the future of our race.

A machine may be used over a long period of time and serve its purpose well—but suddenly subject it to some undue strain, and it goes to pieces before it gets well under way. "Old Dobbin" would fall dead if brought back from the annals of the past and put into the traffic of any of our large cities of today. Thus might changed environment or high pressure bring into prominence some previously existing defect or weakness, which, under the ordinary low tension might not be recognizable as such.

It appears to me, that properly developed, with energies rightly directed, the girl of today is far better fitted, both mentally and physically, to assume and bear the burdens and responsibilities of maternity than were her forbears—opinions to the contrary notwithstanding. It is only that unnatural conditions and abnormal stress of circumstances have brought out and made more glaringly evident in the present-day girl certain developmental defects which have existed even farther back than her grandmother's time—definite evidences of which many of the older women of today still bear as painful reminders; and all these troubles are blamed upon childbearing, when the condition or causative factor existed before impregnation took place, and should have been corrected in the developing girl.

For a number of years, it has been a source of wonder and question why so many women in all stages of life exhibit left-side contractures complicating other displacements, either forward or backward, with uterus drawn markedly to the left side of pelvis—contracted ligaments fixing it to pelvic wall. Even after having borne children this condition persists—often more aggravated after each succeeding labor, when the heavy organ gravitates naturally (?) into its old accustomed nest—a true reversion to type. Involution progresses slowly, resulting in contractures from unequal shrinking of ligamentous attachments. (This condition always reminds me of a gate hanging on one hinge.) The stage is now set for trouble, and with each succeeding pregnancy, may grow worse and more difficult to correct as time goes on. All such cases should be examined and treated postpartum. If correction is properly made at this time, by the time involution is complete all the parts have shrunken evenly with no contractures resulting. These irregularly complicated condi-

tions respond readily to my gravity method of treatment—consisting of corrective manipulation and postural exercises. Patients very soon learn the exercises in regular rotation, and become thoroughly interested in their improvement from the beginning. They learn to get well and keep well, naturally!

About three years ago, after having brought to my attention abnormal conditions in several girls ranging from fourteen to twenty years of age within a short space of time—in reviewing them I was struck forcibly with the fact that each and every one of them had the same developmental defect—uterus buried and firmly fixed to the left side of pelvic wall. Immediately I began to refer back to similar cases of young women whom I had examined, and to my surprise found nothing but left-side contractures recorded. From that time to the present I have systematically recorded cases of two hundred young women examined and up to this time have never found any other placement of the uterus in the young girl. With patient occupying the knee-chest position, examination and corrective manipulation may be accomplished without exposure or embarrassment. Aided by deep breathing the entire abdominal mass is carried well upward; and allowing patient to drop slightly to right side and sharply reflexing the left knee causes the uterus to bob upward like a cork. Once released, it never need return to its secluded quarters, for it immediately changes shape, rounds out and assumes a position all its own, giving supportive aid to, and receiving it from adjacent organs; and by its buoyancy and bobbing about soon develops its too short left-side attachments to the extent that its freedom is established. It is this inequality of ligamentous attachment, and its persistence (or recurrence after labor), that causes the great percentage of pelvic displacements in women later on in life, when the burdens of childbearing are added to these already existing defects.

As a rule, after the first examination and treatment, no further local measures are required, excepting in certain instances to examine slightly occasionally to be assured that all obstructive abnormalities are being effectually developed out by the hygienic exercises at home. The younger the girl the less treatment is called for, the soft yielding tissues reacting readily to the corrective posturing. In the older girl, from twenty to thirty, the tissues are apt to be more firm and fibrous, requiring more time and vigorous moulding of the parts to effect a correction. At least two-thirds of the two hundred girls were never examined the second time! To avoid the necessity for even this much local examination and treatment in the young girl—as soon as

she demonstrates any signs of womanly development she should be put through the developmental exercises to carry upward into freedom both abdominal and pelvic organs. These exercises should be taken daily until a regular habit is formed.

Thus would it appear, and seem to be proven—and can be verified by any one who cares to make the test—that this left-side contracture and placement of the uterus is a developmental defect of young girlhood, from which any and all other displacements, distortions or deviations may have their origin. Because, “following lines of least resistance,” the crowded and bound-down organ, in its ineffectual efforts to acquire space and freedom, may twist, turn about, distort, bend either backward or forward, until it settles helplessly into the circumscribed space it occupies, always hampered in action by its position, the abdominal load enshrouding it, and its undeveloped left-side attachments pinning it to the wall.

In its efforts to acquire space for action and growth, the uterus might be likened to a germinating seed planted in the earth. Life and activity are evidenced by a gradual swelling, then a lifting and bursting forth into freedom of action. Its ability to accomplish this is altogether dependent upon conditions surrounding and enveloping it. So, displacements and distortions are initiated with resulting peritoneal sacculations and deformities, thus bringing about all sort of abnormalities, anatomical and physiological, which may—and oftentimes do—persist through life, unless early measures are instituted for their correction; and the earlier the better. If all these errors of development could be effectually overcome as the girl merges into womanhood, what wonderful possibilities might be opened up to woman-kind now so hampered by their many acquired and preventable weaknesses!

What a wonderful mechanical apparatus is the human body—wonderful in construction—more wonderful in its many actions and functions; it is only by going away back to first principles that we can arrive at any solution of the many human problems and a correct understanding of its hidden mysteries. Oftentimes we must work laboriously and long in removing obstacles which hamper and cloud our vision and lead us astray in judgment, before we arrive at the real underlying cause, which when reached and uncovered, stands out like the proverbial “sore thumb,” evident from every point of vantage—and we wonder why it was not recognized and pointed out long ago—the left-side contracture, which should be stretched out and developed out, allowing the uterus to float upward easily and naturally.

In considering the uterus fixed within left-side pelvic basin by its short undeveloped attachments, let us study those of the opposite side; not stretched out necessarily, but in just the position to permit the functionally active abdominal mass to settle down upon them, like a heavy weight thrown over a line. This weight being applied and directed against the right aspect of the uterine body, produces more or less tension upon right attachments, almost invariably occasioning the right-side pain so often complained of (and so misleading to the diagnostician), which may be intermittently spasmodic in character as the load is shifted along its route from loop to loop in the movements of the intestines.

This pain or discomfort may be an ever-present entity, or may only be complained of at or near the menstrual period, when increased weight and muscle contractions of the uterus, in its efforts to acquire space for action, makes the pull upon these attachments more evident and painful.

Observe at the right side we find the ascending colon with its sagging bag of semi-solid contents—an almost never absent mass, from early childhood to old age. Another point I have noted is that the rectum, almost invariably loaded, lies at the right of the uterus, contrary to our anatomical rules, which tell us—“Normally, the uterus does not occupy a perfectly central or median line position within the pelvis, but tends somewhat to the right side, due to the pressure and encroachment of the rectum (often loaded) behind, and toward the left side.”

Anatomically and theoretically these relations might be correct, but in fact, their positions are really reversed and a complete transposition of organs has taken place. Why?

Let us now consider the first ten or twelve years of the girl's life from earliest infancy to puberty, with all its storms incident to “the proper adjustment of internal relations with external conditions.”

In early life, the little insignificant, non-functioning organ—the uterus serves as nothing more than a connecting link between two actively functioning ones—rectum and bladder. These two organs have occupied the stage of action for so long, filling the space allotted the three, that when the third one begins to wake into tardy action, its place is already usurped by organs whose functions have been established from the beginning.

Now, if at this stage of action space could be opened up for the entrance of this new factor in the economy, around which all others should revolve, all might be well. But instead there is waged a battle royal for supremacy, resulting in the crippling of all three combatants, the uterus, being the last

to enter the field of action, being the greatest sufferer. Crowded down, buffeted about, displaced backward or forward by warring elements, it functions painfully—yet functions. Instead of being a connecting link, and becoming a buoyant keystone of the pelvic arch, aiding and receiving aid from the other members, it becomes a veritable bone of contention in its efforts to escape its tormentors—and, Samson-like, destroys and is destroyed.

Recognizing existing conditions and correctly diagnosing deformities and displacements, all these abnormalities may be corrected at almost any stage of development—but how much better to avoid these end results by properly developing the young girl?

In treating and correcting all the acquired disturbances of later womanhood, we are led almost surely back to the causative factor—the left-side contracture,—the condition last to disappear,—and first to recur when further storms menace.

Overcome and fortify against this danger spot in the girl, and our womanhood is safe!

CONCLUSIONS

1. It is this inequality in ligamentous attachments which robs the uterus of its equilibrium, and as its specific gravity increases, distortions and displacements are initiated;

2. Which causes so many young women to abort in their first pregnancy;

3. Which gives so much distress and inconvenience during the first few months of pregnancy;

4. Which causes women to abort repeatedly—from one to a half dozen times in succession, with no apparent cause;

5. Which causes abortion to be induced from a sudden jar or fall, or even a slight misstep, owing to the fact that the uterus lies against the pelvic bone and the force of the injury is transmitted directly to the body of the organ; whereas, poised in proper position it would rebound like a rubber ball, and the force of a blow or other injury would be dissipated upon surrounding parts—no harm resulting.

And the proof is not far to find, for every one of these will bear the stigma—left-side contracture, with uterus pinned down in the pelvic basin,—the handwriting on the wall!

And the appalling waste of human life! Can we compute it?

—R—

Relation of the Doctor to the Druggist

DR. W. S. HUDSBURG, Independence

Of course we all know that in America the collar is the standard of trade or commerce, and that the principal aim of everyone who works for what he or she gets is to make a living for himself and his family and to lay

aside enough to keep him when that day comes, when age or accident permanently disables him from work; which might be termed an emergency or old age fund. Then after that, if possible, to have some luxuries or pleasures. Now to do this either honesty or graft may be successful. However, the great majority of people prefer the former which is more slow but also more sure, and to do this the only word necessary to know is service: or to give a dollar's worth for a dollar, and this is the aim of the two great professions to which we belong, and which are so intimately united, that of the doctor and of the druggist which in the main are both branches of medicine. Naturally in the progress of advancement side lines have developed in each. The doctor has taken up surgery, electro-therapy, hydro-therapy and all of those lines, while pharmacy has taken up as many or more legitimate side lines, and in all of these both may give honest useful service to the public at large.

I don't know just how old the profession of pharmacy is, neither do I know just how old our profession is, but we all know that they date back further than the oldest in this room can remember, and both have been tangled together ever since the birth of which ever is the younger. And both can give a better service to the public by working harmoniously and hand in hand.

No one single doctor can afford to carry in stock all of the drugs which he might need in the course of his practice, for three reasons: First, he has not the capital to invest. Second, he has not the time to compound nor the ability to properly compound his prescriptions. He may and probably does know just what the particular patient needs, and also just what the action will be on the human system, both physiologically and therapeutically, and that is his business to know. Third, he has not the time to do this when he is at all busy, which is the case with most doctors. He may not be making calls or that kind of thing all the time, but he is only human and the old machine cannot stand to be run all the time without some stops for rests and repairs, therefore he needs time for recreation.

The druggist knows more of the chemistry of compounding and not so much of the action on the human system, either physiological or therapeutic, as does the doctor. Both the doctor and druggist must have some knowledge of the other's part of the work, but neither can have full knowledge of both.

Then as to the capital, the druggist having the business of several doctors, along with his side lines, does not need to invest any more

for many things than would one of the doctors alone.

Once upon a time, for instance, I with another doctor wanted to give a very large dose of tetanus anti-toxin of which one dose alone retailed for \$50.00. This has been only once in the nineteen years that I have been in practice, while other doctors have undoubtedly had the same experience, perhaps not with tetanus but with many other things, in fact we all have. Now you see I could not afford to stock up with everything which I might probably need only once in a life-time, neither can anyone else. I may add here that at the time we used this dose we used all the tetanus anti-toxin in town, in the several drug stores, so that no one had in stock the whole amount at one time even.

One druggist has told me that his stock included about four thousand articles to say nothing of the different sizes of the same article kept in stock. Many things such as vaccines and serums become too old to use and must be returned or thrown away. This the doctor with his practice to think of would probably neglect to do and when he most needed these vaccines his supply would be so old as to be of little or no value.

Now as to time, the druggist of today, as I said before, can have his side line of sundries, so that he need have one or several clerks, delivery boys and necessary helpers, a thing the doctor cannot have. And as the druggist's knowledge of disease and therapeutics is not and cannot be so deep as that of the doctors why should the doctor attempt to dispense, or the druggist attempt counter-prescriptions.

I do not mean to say that many doctors do dispense or that many druggist's counter-prescribe. But some of them probably do in some localities.

If a dead-beat comes to the doctor who dispenses, he probably writes a prescription and sends him to a drug store and lets the druggist lose.

A doctor in any town of any size need not dispense, neither need a druggist counter-prescribe, and if we keep the interest of the public at heart neither one will, but instead will send a sufferer in the proper line, not necessarily to any particular doctor nor any particular druggist, but to some one who is competent in his own line. Thus many times saving the public money and perhaps ourselves some embarrassment. Last week I was called to see a lady who had made her own diagnosis and bought medicine which she thought would be all right. She got worse, at least, not any better, then after three weeks she called me. She told me she had already used \$15.00 worth of medicines of various

kinds. I prescribed only one bottle of medicine and put her to bed and the next day she was well, costing her two calls \$6.00, one bottle of medicine \$1.25, total \$7.25, against \$15.00 already uselessly used.

It didn't happen to be a druggist counter-prescribing, but it could have been in a case of that kind. Had it been, and had she died and a doctor refused to make a call just before she died as he properly could have done, it would have been very embarrassing to the druggist to have had to sign a death certificate.

Had the druggist counter-prescribed up to the last day or two, then refused to do so anymore, but told them to get a doctor, it would have been very unfair to the doctor.

Now, therefore, I say let us work together as we should, each at his own end of the trade and each with his best skill and each collecting his own fee which is really due him for the services rendered the public and each give the public one dollar's worth of service, or even a little more, for the dollar which the public gives him. Then he will know that the best that is in him has been given the ones who have trusted their health and probably their lives to his skill, and by doing this, I really do believe many lives can and will be prolonged for many years to enjoy the beauties of this earth, and the tendency of the public will be to respect our honesty and skill and drift away from the ignorance and quackery of the cults.

I wish to beg your pardon for referring to my own experiences but I have not been able to find much in literature on this subject.

—B—

Druggists and Doctors

I. G. FOWLER

Address to combined meeting of Montgomery County Medical Society and Druggists, at City hall, Independence, Kansas, Feb. 15, 1924.

Mr. Chairman, Doctors and Druggists:

I regard it as a real honor to be allowed to address a body comprised of the two professions I know most about. I think you doctors will not take offense at my calling our line of work a profession, as well as yours. Perhaps we do not profess as much as you do but we profess quite a little. Possibly both doctors and druggists profess a little more than is justified by results, but let that go. It is all right as long as we can put it over.

I believe there are no other two professions so closely allied, so dependent upon each other, as are the two represented here tonight. And there never was a time when both doctors and druggists so thoroughly understood this truth, nor when they were working together in so much harmony, with such a spirit of

brotherhood and with so great a degree of confidence in each other. With a single exception, my good brother, Frank Yoe, I am dean of the druggists of Montgomery county in point of length of service; with one other exception, Dr. Holmes of Parsons, I have been longer engaged in the handling, compounding and selling of drugs than any other man in southeastern Kansas. I have been associated with a good many doctors and a good many druggists during the forty-seven years that I have been actively engaged in the drug business. And I have seen much change in that time, not only in the attitude of doctors and druggists toward each other, but also in the attitude of doctors toward each other and of druggists toward their fellows.

Just what means have worked together to bring about this desirable change I do not know. Perhaps just a natural evolution combined with horse sense and a growing realization that we could all do better for ourselves by elevating the standards of our business, rather than by the old process of each individual trying to elevate himself at the cost of pushing down his competitor.

I well remember when each druggist in a town regarded every other druggist as his personal enemy and antagonist; when he would refuse to direct a customer whom he was unable to supply to another drug store; when he would refuse, where possible, to furnish a competing druggist with an article imperitively needed to finish a prescription, and feel that he had pulled off quite a creditable stunt in embarrassing his brother druggist who was trying, as he was, to earn an honest living. Let the . . . keep a stock of goods if he wants to do business, I'm not here to cut my own throat. And yet, he was cutting his own throat in a far greater measure than he would have done, or believed he would have done, in helping out a fellow man and fellow druggist. Possibly the unobliging one got to fill that prescription himself, though it is more likely that the customer waited until his own friend could send away for the article, unless, indeed, it was a case of immediate necessity. And it is altogether unlikely that he would ever get any future business from that man or his friends after the druggist of his own choice explained why he could not serve him in that instance. Man-kind is variable in its mood but it has always liked fair play and disliked littleness and petty selfishness.

It seems to me that of late years the public is more inclined to regard druggists as people. They did not use to think of us in that light very much. As I remember then, they were looked upon more or less as vampires, ready at all times to defraud the people who

were so unlucky as to have to deal with them. It was a well settled fact in the minds of most customers that the druggist would take your money and give you any old thing he happened to have in stock, instead of the correct thing; and above all else he would charge about ten times what he ought for whatever it was. All of us have strained ourselves a hundred times, trying to appear amused while somebody told that old one about the deaf man who thought the druggist said five cents when he had said seventy-five; the druggist finally giving up the struggle, taking the five cents and remarking that he had made three cents anyway. I don't know how many times I have listened to that old gag which never was a good story to begin with, since I read it in Hostetter's Almanac more than fifty years ago. Every once in a while somebody springs it yet, usually as an incident that came under his personal observation. It is on a par with that other brilliant one about the banker who said, "We don't correct mistakes after the customer leaves the bank."

"I says to him like this, I says, all right, by thunder, I'm just five dollars ahead; and I just walked off and left that-air feller looking mighty sick."

I have heard and read more times than I can remember that a druggist will say, "No, but we have something just as good." Friends, I have known a great many druggists and been in a great many drug stores in my time, and I have never heard a druggist say that or anything like it in my life. The patent medicine people are largely responsible for that saying, I think. Beware of imitations, there is nothing "just as good," don't let your druggist fool you into taking a substitute, and all such. The very first advertisement of a new fake will caution the public to be on the lookout for the numerous imitations and see that your druggist does not foist one of these off on you.

For a good many years druggists in most places have been friendly and helpful to each other, and thereby to themselves. Especially have the druggists of Independence, and, to a large extent, Montgomery county, been on good terms. I think that no city could show a better example of clean competition than is to be found in the retail drug business of this city. Perhaps other cities have the same happy experience, but I know more about this one, of course. I find myself short of an ingredient needed to finish a recipe or prescription: or, possibly a patent medicine which is to go on the account of a customer who has no account elsewhere: I feel no greater embarrassment in asking one of my competitors to help me over the hard place than does a woman who runs to a neighbor,

after she has a meal nearly ready and finds herself out of tea. And none of the other druggists shows any more hesitancy in extending the favor than does the neighbor in lending the tea.

I believe that this attitude of friendly co-operation is now general over the country, at least in a larger measure than it was in days of old. One extreme instance of courtesy I will mention, and it is worthy of a place side by side with the strictest provision in you doctors' Code of Ethics, which is said to direct the conduct of the closest corporation in the world:

A customer had neglected his account for many months; paid no attention to frequent statements and requests, but kept on ordering medicines over the phone. For a short time he took to paying cash but that did not last long. One day we declined to add to his long overdue account some prescriptions which he had ordered and we had filled, the price amounting to several dollars. The customer was very insulting as he formally withdrew his patronage after refusing to take the medicines and pay for them. Securing duplicate prescriptions from his doctor he took them to another store, prepared to pay the cash. As it happened, the other druggist was short of several of the necessary ingredients and came to my store for them. Recognizing the order I explained the circumstances and offered to give friend druggist the medicines we had all ready, since they could not be put back in stock and were of no value to me. Like the gentleman that he is, Mr. Stevens declined to take advantage of our trouble. Instead, he went back empty-handed, gave the customer his view of his conduct, and told him to go back to Fowler's, take the medicines he had ordered and pay for them like a man. Did Mr. Stevens lose by his action prompted by his high sense of honor and fairness toward a competitor? I trust not. I have tried and shall always try to see that he does not. I can not imagine a situation in which I would not help him out to the extent of my ability.

An extreme instance of the darker side of the picture comes to my mind at this time. It was in the old times when druggists fought instead of co-operating. In fact, it was during the days of what we called the Russian Grippe, La Grippe, Lay-grippy, etc. You older doctors will remember that antipyrin came into vogue in that epidemic and was largely relied upon to control the fever and pain. The unexpected demand soon made the drug hard to get and it advanced rapidly from about a dollar an ounce to five or six dollars, perhaps a little higher. One drug store there was which did practically no pre-

scription work—the old Jack Roberts store. While Jack did not cater very much to the more ethical side of pharmacy, he was a good fellow. Everybody liked him and he was always more than ready to help out a competitor, or anyone else. Jack had an ounce of antipyrin, bought at the old price and knew nothing of the sudden rise in value. One evening another druggist stopped, laughing, at my store to tell me a good one he had pulled off on old Jack. "Offered him a dollar for this ounce of antipyrin and he took it. Said he was glad to accommodate me."

That was a long time ago, perhaps twenty-five years or more. Both Jack and the other druggist long ago went to their several rewards, whatever they were. I am confident that such a thing would be impossible in this county now, for two reasons: First, that no druggist would be so ignorant of the value of his goods; second, that no druggist with so shrivelled a sense of decency could be found.

As a matter of fact, druggists have had to grow nearer together to save themselves. On the old basis of cutting prices and doing everything to keep each other from getting ahead it was very hard for any druggist to make more than a bare living. And expenses were nothing at all, compared with these present days. The most capable registered pharmacist thought he was doing well at fifteen dollars a week. Rent was twenty-five dollars for the same class of rooms that now bring a hundred or more. None of us used electric lights and we burned coal at three dollars and seventy-five cents a ton, or gas at from five to twenty cents a thousand. The average grocery bill was twelve to fifteen dollars a month instead of fifty to one hundred, as now. Standard patents cost about seven dollars and fifty cents a dozen, instead of nine. Hood was, as I remember, the first man who had the gall to put out a patent and charge eight dollars a dozen for a dollar preparation. With one exception, the Shaker, I can not remember any twenty-five cent pills that cost the retailer more than a dollar and a half, instead of two to two-thirty, as now. When Hood raised his price to eight seventy-five he was dropped like a spoonful of hot mush. Under the old system of fighting and price-cutting not a druggist could survive these times in the towns and small cities. And we have had to raise the price of prescription work to a point more nearly commensurate with the cost of the clerk who does it—which is to say from forty to fifty dollars a week—a good three times the former price. Besides all these increases come the income tax, special taxes of all kinds, a wilderness of records to keep regarding alcohol, narcotics and such.

Whenever the government finds it desirable to raise some extra money the old druggist knows who is going to catch it. It seems to be a hard and fast law that druggists are fair game for every legal sportsman.

For these reasons it is our only salvation to help one another instead of each pulling for himself against all the rest. Aside from the necessity of it, it is a much pleasanter way to live; friends with those who have the same troubles and trials, who have the same problems to work out and the same things to think about, to worry over and to feel good over.

I have noticed that the feeling between doctors has undergone a change in the last quarter century, as remarkable as that between druggists. It is well within the memory of some of us here tonight when doctors called each other fakers and quacks; when a doctor called to a case which had been treated by another would sniff at the remains of the medicine, look disgusted, and say, "No wonder you were getting worse instead of better." Now, I don't mean all doctors, any more than I mean all druggists were that way. But that was the tendency. Instead of showing respect to a brother doctor who had done his honest best, but who had committed the very human error of making a mistake in diagnosis or medical indication, at least in the opinion of the new doctor, he would do the other thing. He would magnify the error, endeavor to make it appear that the discharged one was entirely ignorant of the profession he was disgracing, and even malign the institution from which his brother doctor had graduated.

Now, Doc, don't say this isn't so. I have seen and heard all these things, and worse, with my own eyes and ears, and not once, but lots of times.

I believe that not one of you here present would do such an ungracious thing. It has gone the way of the dodo and King Tut. Doctors, like druggists, have long ago learned that the profession is made to stand much higher in dignity and usefulness with its members fraternizing and helping each other, each making use of the knowledge and experience of his brothers. He has learned that the humblest of tyros in the profession may have acquired bits of useful information, the best way or the worst way of handling some situation; information which he alone, from happy or unhappy experiment, has learned. Not one of you but knows and freely acknowledges that books—the best of them—give you no more than a start in the right direction. The rest of the way you must travel by the light of your own experience and the experience of others; even sometimes stumbling in the dark, over a rough place which might have been avoided had some one, perhaps far less

capable than you, warned you of the danger. If he had fallen down he could at least have told you what tripped him.

Another feature of this better feeling and fraternal spirit that has prevailed among you of late years; a feature which you are supposed to regard with indifference but which, nevertheless, is not to be sneezed at—and really I have never heard one of you sneezing very hard at it—is that you make more money than you could by pulling apart. In the old days the least of the average man's troubles was his doctor bill. It was regarded as rather a cheeky thing for a doctor to suggest that he be paid a small sum on account. In fact, he was not so far removed from the class of the old-time preacher who was expected to express gratitude for a pillow-case half full of dried apples and six yards of calico, once a year. "Here, Doc, I might as well let you have this dollar. I've just been over and paid up my grocery bill and shoe bill. You fellers sure do make your money easy; y'ought to have to work for it like I do. Took me a blamed sight longer to make that-air dollar than it did you, laugh, whaugh, whaugh."

Now, thanks to your organization and your spirit of working with, instead of against, each other, it is no longer considered bad form to pay a doctor for his services and the debt is regarded as, at least, semi-legitimate. I sometimes think that you carry your courtesy to each other to an extreme hardly warranted. It is the hardest thing in the world to get one of you to give his honest unbiased opinion of another doctor, whom the questioner suspects, and the doctor knows, to be unworthy. A code of ethics is a great thing and it has done wonders for your profession, from a material and professional, as well as social standpoint. But it ought to cover, and doubtless is meant to cover, the welfare of the public as well as yourselves. But I don't know that I blame you very much; a druggist will evade a similar question regarding a member of his fraternity. And, as a matter of strict fact, were doctors and druggists to give their honest opinion broadcast in such matters they would only brand themselves in the minds of the public as jealous antagonists, and the one discussed would reap the only benefit—that of being considered so far superior in his line as to excite the vicious envy of his competitors.

As to the relations existing between doctors and druggists, time has worked wonders. The time was, and no man of the older line on either side will dispute it, when druggists were not as careful as they are now to serve and protect the doctor, and when the doctor was not careful to aid and protect the druggist, even when he knew the druggist was honestly trying to do the right thing. Drug-

gists resented the fact that the doctor would insist on buying his medicines at cost or a very small margin over, and furnish them to the patient himself. There was real cause of complaint, and it was a very foolish thing and an unprofitable thing for the three parties most interested; the doctor, the druggist and the patient. The doctor would give the patient—not the drug that he knew was the very best for him, but the best of what he happened to have in his stock or in his case. He was out whatever the medicine had cost him, getting not a red cent more for the service and medicine combined than he would have got, and ought to have had, for the service alone. If the patient did not pay him he was out the cost of the medicine as well as his time and labor. The druggist got nothing at all out of the transaction, unless indeed, as sometimes occurred, he got the distinction of being to blame for the failure, on the ground that he had sold the doctor a poor quality of drugs. The patient was the worst loser of all, because he had been deprived of the benefit of the doctor's best skill and knowledge, and the almost unlimited resources of a well-stocked and well-kept drug store.

For a while after most doctors saw the wisdom of writing prescriptions, and the people had become accustomed and resigned to the innovation, the doctor still had some doubts as to trusting the druggist, and made no bones of voicing his hesitancy. More than once I have had a doctor stand over me and watch me fill his prescription, to be sure it was done correctly, when I knew, and he knew, that he could not have told to save his life whether I was doing my work properly or not. But he did not know that I knew it.

Practice of medicine is one art, pharmacy is another. They are distinct, though related. Few men there be who are capable of practicing both successfully. There is no good reason why anyone should attempt it and abundant reason why he should not.

For a good many years I have had no such experience as mentioned above. There are doctors, good friends of mine, too, who prefer to have their patients deal at some other store; but none, with a possible single exception, who is not perfectly contented in his mind as to the honesty and skill of his prescription filling, whether it is done in my store or in the store of any one of my competitors. All of them know that compounding prescriptions dishonestly or in a slovenly manner is no longer to be feared in a town where there are druggists with reputations to maintain. They know that druggists of their acquaintance have too much regard for their own good to perpetrate fakes, even if they were evil-minded enough to want to do it. Quack drug-

gists have, most places, gone the way of quack doctors, the elimination of both having been assisted by laws and by public opinion.

I have no better, more sincere, friends than among the medical fraternity of Independence, though they do not all patronize my store. They are also friends to my competitors, some of them, perhaps, to a greater degree than to me. If, as sometimes occurs, I am short of some ingredient prescribed, I have no hesitancy in calling up the doctor and asking if I may use something else—for instance, peptenzyme elixir for peptenzyme, or vice versa. If, as nearly always happens, he is willing, we make the change, marking the prescription, "Changed to so-and-so by the doctor's permission." If, for some reason, he does not permit the change we simply explain to the customer that we are not prepared to fill the prescription at that time, very sorry, doubtless he can get it at some other store, we will try to treat him better next time, etc., and everybody is left with a good taste in the mouth. No harm done except the small profit that might have been made on that particular sale. I have always found doctors ready and willing to help out the druggist when it can be done consistently. When he does not feel justified in allowing the change, the druggist has no cause for complaint and should make none. I have even had the doctor help smooth over a real mistake for me. The boy had taken the wrong prescription to the designated house. It is not the right medicine for that case. It is necessary to send the right medicine and get back the other. The doctor will even sanction a little play of diplomacy which may involve a slight departure from exact truth. This does not happen often but is possible and may happen to any druggist. The exchange is made, nobody hurt, everybody happy, and the druggist very grateful to the doctor for his consideration.

It is also possible for the doctor to make a mistake: The ounce sign for the drachm, the prescribing of drugs which will not go well together, such as tincture of iron and glycothymoline, for instance. Or any one of a good many very natural mistakes that may be made in a hurry. Does the druggist tell the patient that the doctor has made a mistake? He does not. Not for all the money that could be piled up on his floor would he do it. He explains to the customer that the prescription is a tedious one to fill, will take some time to do it properly, and the customer had better call later. Meantime he gets in touch with the doctor and finds just what and how much he wants, and again everybody is happy.

In the old days these courtesies were not so common. I should not like to go back to the "good old days" when doctors and drug-

gists regard each other with mutual jealousy and distrust.

Just now I am reminded of a very good friend of Dr. Hudiburg and myself. We made his acquaintance while on our August winter vacation in the hills of Arkansas. The incident has nothing to do with this paper and I only relate it because Dr. Hudiburg is here tonight. Our new acquaintance was most friendly and communicative. "No," he said, "we don't want any railroads coming through here. Some of these fellows keep trying to get one. But it would ruin us. Now, as soon as a railroad was located through here, don't you see that a lot of these young squirts from the colleges would come down here to locate? And they would go to cutting prices so that us real doctors couldn't live. Now you take me; I don't go anywhere for less than a dollar. I don't care if it is only across the street. I charge a dollar. Just got back from a case up on Coon Creek a few minutes ago—got the dollar in my jeans. Got them educated, they know they needn't send for me unless they expect to pay a dollar." We learned that Coon Creek was a good fifteen miles away and the doctor had gone on his horse, with the medicine in his saddlebags.

In closing, will you pardon an old man who has spent nearly half a century in the drug business, and who loves it as he does his life, for taking you back with him on one of those excursions of memory which he so often takes alone? When I began working in a drug store the telephone had yet to be invented. People had not yet even begun to laugh at the silly cranks who imagined that a machine heavier than air might be made to float in the air, and even carry a man besides; or at that other still funnier idea of a carriage that could be propelled without horses and without a track to run on. The high-wheel-low-wheel bicycle was not yet in evidence. Getting back to medicine; doctors used, for the most part, crude drugs, such as powdered gentian, jalap, serpentaria, ipecac, squill root and all such. Frequently they left a quantity with the family with instructions how to make them into teas, boluses, etc. A large part of the U. S. Dispensatory was taken with directions for making tinctures by maceration, percolation being in its infancy and looked upon as a doubtful experiment. Fluid extracts were not much in evidence. Squibb's fluid extract of ergot was especially mentioned in the dispensatory, as also, Tilden and Co.'s process for making fluid extracts "In Vacuo." Husband's isinglass plaster was a startling innovation, being semi-transparent, and had honorable mention in the same dispensatory, as, also, Plantagen's "Jupube Capsules," dark-colored, irregular, knotted things that would be thrown into

the slop bucket on sight of any druggist of these times. The so-called elegant preparations were in the experimental stage and were represented by a few feelers, such as Tilden's Bitter Wine of Iron and Elixir Iodo-Bromide of Calcium Compound, and Wyeth's Elixir of Pepsin and Bismuth, with a few others. Parke, Davis and Company were a small and struggling concern, ranking below Tilden and Co., John F. Henry, Curran and Co., and I believe, below Lilly at that time. Lilly occupied a brick building resembling a two-story, double store room in the White river bottom at Indianapolis.

Druggists made their own pills, coating them usually with powdered licorice root, or for an extra nice job, with gold or silver leaf, the dispensatory of that day sanctioning both methods. Tablets, ampones and all the thousand and one forms of administration so common now, were as yet unknown. A doctor who used a clinical thermometer was looked upon as rather a sissy. The patient had fever or he did not have fever, as shown by his pulse, and that was all there was to that. People died of appendicitis under the name of inflammation of the bowels. Doctors considered eight grains of calomel as conservative and it was oftener given in twenty grain doses, even as high as sixty. One poor boy I knew who had lost the flesh from both cheeks, leaving all the teeth exposed, from the wrong or excessive use of the drug. A lady of my acquaintance lost the greater part of both lips from the same cause. You doctors know what would happen to one of you who would pull off such a stunt these days. But suits for malpractice, like tablets and ampoules, were yet to be invented. A favorite medicine, much affected by the laity and frequently recommended by the profession, was a handful—big or little hand, no matter—of tansy, with a few pieces of "yaller puccoon root," in a gallon of whisky or gin, to be taken ad libitum. It would keep off the "agur" and cure "yaller janders." If it failed to accomplish these results it merely meant that the ad libitum had not been frequent enough or that the dosage had been insufficient. If, in spite of the increased ad libitum and dose, the patient died, then it was, "Ah, brethren, the mysterious will of Providence. We can't understand it, with our pore, miserable mortal eyes, but in that-air great day, brethren, in that great and glorious day, then, ah brethren, will our eyes be opened and we shall see, ah. Oh, brethren, what a thought, what a thought!"

Doctors, I beg you to believe that we druggists appreciate to the utmost the large measure of friendship and confidence you give us, and the very helpful attitude you maintain

towards us in our honest efforts to serve well both you and your patients. I hope we may feel, too, that you are glad of our friendship and co-operation. May we grow still closer together and be of yet great service to each other as time goes on.

—R—

Fables of a Country Doctor

RENNING ADE

THE DOCTOR BUYS A CAR

One night after the children had been tucked away in bed, the Doctor in a low tone confided to his wife that he would probably have to get a new car soon, as the old one was fast going to the bad. The battle raged far into the night, but eventually they decided to think it over for a month or so, and in the meantime nothing should be said.

The next morning a little after daylight a car came dashing up, driven by one of the local gas-hounds from the nearest garage. Bright and shiny it appeared, and it was soon made evident that it was there to be demonstrated. The Doctor glared suspiciously at his wife, and she in turn gave him a pitying stare. Both denied divulging the secret that they had even thought of buying a car.

However, it was only courtesy that the Doctor should ride in the car and be shown its fine points. The driver fluently went into ecstasies over the merits of this one particular vehicle. He dilated upon the type of motor, the oil feed, the gear-shift, etc., etc., ad lib.

The Doctor, who didn't know an intake valve from a main bearing, listened in pleased wonder, all the time planning his defense.

The demonstrator told him how a car of this make had won the international endurance test in a field of 200 competitors, in running in intermediate gear over a 40-acre listed field. It also held the record for continuous speed over cattle-guards on the railroad track. It also had won the open event for empty-headed drivers in running backwards up Pike's Peak against a hard wind in a driving snowstorm.

The Doctor beamed with admiration and astonishment, but ventured to remark that he did not expect to do much plowed-field or cattle-guard driving, and probably never would attempt to negotiate Pike's Peak backwards.

But he was finally induced to get behind the wheel "and step on her." She answered the call, and roared away fast enough to suit any speed maniac. Chickens and turkeys scrambled to cover, and farmers glared pitying at the old fool.

The Doctor succeeded in turning corners and stopping without much trouble, and finally

managed to get away from the demonstrator without binding himself to buy.

At the office another shiny new car awaited him, and another loquacious advocate of a sterling make of motor insisted on showing his goods. This was the famous valve-in-the-chest motor, and held the record on gasoline used in a competitive run between 84 makes of cars. This particular car had run from New York to Washington on a quart of Gasoline, and a pint of that had been accidentally spilled while putting it into the tank. A man in Chicago had operated one of these cars every day for a period of two years at a total expense of one dollar, and that was paid out to a colored man for cleaning the carpet after an irresponsible friend had become nauseated. In some states the county commissioners were installing these cars for the use of the inmates of poor farms, claiming it to be less expensive than croquet or horseshoes.

The Doctor acknowledged the economic features of the valve-in-the-chest were unanswerable, but decided to look around a bit more.

Many and varied were the types of motor cars that were parked about him at all times. Friends met him on street corners, in stores, and at church, and after looking carefully around slipped him inside information relative to some car. All laws of business ethics among dealers were suspended and most flattering concessions were made from the prices they were morally bound to uphold. He could get the Rumbler for \$1875, with one pair of pliers and a hammer, or he could get the Hick for \$1850 with oil-can and one weed chain. In the better cars he could get a roadster for \$4100, or a sedan for \$5125, the latter with a cigar lighter and a vase for flowers or cigar ashes.

He much disliked taking an anaesthetic, but couldn't see how he could pry loose from five thousand bucks without taking one. It was still fresh in his memory that he had once pounded around the country behind a ratty team of ponies worth forty dollars per. At that time he had decided should he ever become possessed of \$5,000 he would retire and live on the interest. Now he was soberly contemplating the profligate expenditure of this amount for a vehicle in which to root around in muddy roads. It fairly dazed him.

Gradually the neighborhood took sides regarding the relative merits of the different cars, and it soon developed he must offend many of his best friends and prospective patients regardless of the choice he should make. He was undetermined whether to buy the air-cooled Benjamin and have no radiator trouble, the valve-in-the-chest Gulick and get 90 miles an hour on a pint of gas, or the lowly Tinfanny and become a Christian Scientist.

The strain of indecision was telling on his nerves, so he thought it wise to take his wife and go to the motor show in K. C. where all the latest models were being shown.

Before leaving the friend's home where he was stopping in K. C. it was deemed only appropriate that they should take just one little snifter of fresh-made high-power hootch for old times sake. Naturally this called for a couple more, and when the motor show was reached the Doctor was registering animation, enthusiasm and loquaciousness. He promptly bought the first car shown on account of the upholstering being the same shade as the dress of the wife of his friend. The fact that the salesman was a Democrat, and proud of it, helped the sale not a little.

The next day he learned from a reliable source that the nearest service station for this make of car was in Peoria, Ills., and that only one hundred had been built on account of improper construction of engine, chassis and body.

How he dreaded to go back home and face the sneers of friends as well as enemies! He feared his practice was ruined, and contemplated a change of location.

He drove the car home, and looked apprehensively at his friends, expecting to be socially cut on all sides. To his surprise everyone greeted him with evident pleasure, and life again was not all gloom. He brazenly drove the car around in his business, and true to prediction it went bad in about three months.

The Doctor breathed a sigh of relief at the fulfillment of prophesy, and turned the car over to Olaf the mechanic to be renovated. Olaf Knudson—and be it known there are many Olafs in every town—was an ex-farmland whose sole mechanical experience had been gained in greasing a windmill and running a manure-spreader for his cousin, Knud Knudson, who had a farm in the sandhills 15 miles south of town. Olaf was of the sturdy muscular type of Scandinavian, and woe betide the delicate magneto that felt the clutch of his trusty Stilson wrench. Something must yield, and it was a safe bet that something wouldn't be Olaf. His idea of overhauling a car was to put on a greasier pair of overalls, crawl down under the car, and unscrew and pry loose all the parts he could get hold of. He would come out occasionally for meals and to deposit the salvage. Ordinarily the tearing down of a car was comparatively easy, but the reassembling was a continuous round of grief. A favorite story of the garage-hounds who loafed about told how some wag had slipped the fly-wheel of an old steam engine into Olaf's box of parts he was reassembling. He stayed under longer

than usual, and was heard muttering to himself considerably, but finally found a place for the stranger, and triumphantly pounded it in place with a sledge.

After the overhauling, the Doctor's car of course was not much good, so he looked around for a trade. One day at the drug store while the Kansas City papers were being distributed he traded it to a brother practitioner for eleven million dollars worth of Dr. Cook's oil stock and three bushels of German marks, after which they both went their way marveling at the childlike simplicity and innocence of the other.

—R—

BELL MEMORIAL HOSPITAL CLINICS

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THROMBOSIS OF RETINAL VEIN IN THE MOTHER OF A CONGENITAL SYPHILITIC FAMILY WHO APPARENTLY HAD NO SYMPTOMS OF SYPHILIS. RELIEVED BY MASSAGE. REMARKS ON THE TREATMENT OF CONGENITAL SYPHILIS UNDER SIMILAR CIRCUMSTANCES.

Patient. Female. Age 62. Apparently in good health. Seven children. No history of syphilis. Blood pressure 160-85. Urine negative. Wassermann 4 plus. Living apart from husband for 18 years on account of his alcoholism. The six children showed none of the generally recognized stigmata of syphilis, although one could tell by examination of the minute blood vessels or the arrangement of the hyaloid that all was not well. Blood tests were taken on all. They were negative in four and positive in three. A record of the respective ages of the children was not taken but the youngest was about 21 years. The eldest was 3 plus; the second negative; the third 3 plus; the fourth and fifth were negative; the sixth was 2 plus and the seventh was negative.

The patient came for treatment in August, 1917, and was seen at 11 o'clock in the morning. The previous night at 9:30 or about that time the vision of her right eye became dim and she went to bed and wakened at about three o'clock in the morning and found that she could not see the window light with her right eye. She turned on the electric light and could only locate it as a dim spot of diffused light. Examination showed the retinal veins full and dark and slightly tortuous, with oedema of the optic disc, and this extended for 6 or 8 D. D.'s into the retina from the disc. The arteries were obscured and difficult to see. There were four minute flame shaped hemorrhages near the disc and one above the macula which was below the nerve fibre layer and appeared under refractive magnification to be about 2 mm. in diameter.

The vision was reduced to light perception with good projection when a strong light was used. The field was not taken. Pressure was made on the eye ball under ophthalmoscopic observation but the veins could not be reduced in size at any part of their course. Pressure massage was used for fifteen minutes and the observation made again under finger pressure but no movement of the column of blood could be observed. The patient was given 40 m. of saturated solution of Pot. Iod. four times a day and instructed to massage her eye every hour. She was given directions as to the amount of pressure to use. This large dose of Pot. Iod. was given because it was realized that quick action was necessary, if the drug was going to do anything at all, for unless quick relief were given the vision would not return. She was seen the following day at about eleven o'clock, her vision was then 20/50. The appearance of the retina and optic nerve were about the same as on the previous day, except that the veins were perhaps not quite so dark in color. Finger pressure was made and the veins easily collapsed along a course of two and a half D.D.'s from their exit at the disc, showing that the obstruction had disappeared. The medication and the massage were continued and at the end of five more days the vision became 20/30 with difficulty. She retains the same vision today, although the optic disc is very fuzzy and is also very white showing considerable atrophy. The veins and arteries are about normal in size and the pupil is one mm. larger than the left pupil and not quite so active.

Although Pot. Iod. may have helped in this case, I feel certain that without the pressure massage we could not have had the exceptionally good results. The eye was seen about 12 hours after the thrombus was formed and the treatment began early, and in all probability it is to this fact we can attribute the return of useful vision. I have always looked upon the stasis in this patient as being caused by a gummatous infiltration pressing on the vein immediately behind the eye but only giving sufficient pressure to slow down the flow of blood allowing it to clot. The patient was averse to much medication, but was prevailed upon to continue mixed treatment for about eight months, and since that time has had nothing in the way of medication, and also no other manifestations of her infection. No other blood tests have been made. Her children were apparently in good health, notwithstanding the blood reactions in some of them.

SHALL WE TREAT LATENT CONGENITAL SYPHILIS?

Just as in the above case we often run into a nest of congenital syphilitics, and in my

mind the first question to be answered is: "Shall we treat them or not?"

I am not in favor of forcing treatment on children of syphilitic parents who are without clinical symptoms or active signs, even if there is a positive Wassermann. In the past, when I was enthusiastic for treatment, it seemed that during its process these young people who insisted always that they felt well in health, soon began to show symptoms of their hereditary condition. My plan now, is to wait until they present symptoms that the infection is active. But before carrying out this plan, it is incumbent upon us to ascertain whether they are really retarded in their activities; because the feeling of well being is comparative, and we frequently find congenital syphilitics who insist that they are well and could not feel better, who when some simple form of mixed treatment is administered come and report that they now have a feeling of well being which they had never experienced before. They had hitherto thought that they were well, but had no conception of what their capabilities were for appreciating something better than they had experienced previously. A person who is born with an infirmity can only give testimony as to his general health, or feeling of well being, from his own experience; and since he was born with the infirmity, it is natural and in good order to assume that he is comparing his present feeling with his past best feelings in relation to the efficiency of his human machine. This must be taken into consideration before we decide to give no treatment to a mildly congenital syphilitic. If, after all clinical examinations, we find that such a patient manifests no symptoms, I am inclined to think of the advice of the famous General Gordon, who spent much of his life in Asia, and who after considering the great possibilities of Asia awake, finally said, "Let Asia sleep." But one must be sure that she is sleeping. There are several signs by which a trained soldier or statesman may tell whether Asia is sleeping or waking, and so with the clinician in regard to syphilis. He cannot depend entirely on the Wassermann reaction nor on many of the stigmata of syphilis. His clinical findings viewed in the light of mature judgment are his best guide in such cases.

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RECURRENT EARLY SYPHILIS

Syphilis may be divided into three classes in regard to its response to specific treatment:

A. Those cases which are spontaneously cured or which respond to a minimum of treatment. There is no doubt that every man

who has treated syphilis to any extent knows families where the father was infected with lues before his marriage and is now the head of a healthy family of adults, some of whom have children or grandchildren; this class naturally is small but does exist.

B. Those cases which respond to a moderate amount of treatment and are clinically and serologically cured, fortunately this class is large and probably represents that type whose forbears have given them a large amount of natural immunity.

C. Those individuals who have such a persistent type of infection that no amount of treatment, no matter how intensive or how persistent, seems to entirely control it, fortunately this group falls in the minority. Why we have this type no one knows, it may be that the individual has been infected with an extremely virile organism, or that his natural immunity is low.

All three of these classes were well recognized before the advent of arsphenamine treatment; but since the use of these arsenicals, and especially since the use of neoarsphenamine, a new angle has been given to the situation. We are now confronted with the recurrent early syphilis shortly after intensive treatment has been used.

In this paper we will make an attempt to throw some light upon the possible etiological factor that is responsible for this condition.

Case I. Male, age 28, patient of Dr. Paul Stookey, appeared with a sore five days in duration. *Treponema pallidum* demonstrated by dark field illumination. The blood Wassermann was negative to cholesteralized and alcoholic antigen. The inguinal glands were slightly enlarged, no other signs. He was given eight doses of neoarsphenamine 0.45 to 0.9 every five days intravenously and eight one grain intramuscular doses of mercury bichloride spaced similarly. One month after treatment the W. R. was still negative. Three weeks later he returned with a pustulo-papular eruption over his entire body typical of syphilis. W. R. positive 4 plus. Treatment was immediately instituted following the same regime as at first. After the third dose he developed a lemon sized gumma on the left shin which is yet unhealed after two months' treatment.

Case II. Male, aged 25 years, contracted what he thought was gonorrhoea in March, 1923. This did not respond to treatment. The inguinal glands became enlarged and a W. R. proved positive 4 plus. He was given one course of treatment which consisted of eight intravenous injections of neo-salvarsan 0.45 to 0.6 and five intramuscular injections of bichloride of mercury one gr. each.

Case III. Wife of Case II, was two months

pregnant when husband contracted the disease. No evidence of syphilis was found but one month later her W. R. was positive 4 plus. She was given one course of anti-syphilitic treatment duplicating her husband's course. The child was delivered in October, 1923, apparently healthy. One month later the mother brought the infant to the hospital for examination. The child was apparently free from disease and its W. R. was negative.

Examination of the father and mother revealed the following signs which were identical in each:

- (1) Mucous patches in the mouth.
- (2) Generalized recurrent roseola involving the entire body.
- (3) Marked scaling papules in the palms of the hands and soles of the feet.
- (4) General adenopathy.
- (5) W. R. positive 4 plus.

The wife developed an annular eruption of syphilis over the entire body during treatment.

Case IV. Patient came to the office with a hard painless ulcer on the upper lip and a large painless gland at the angle of jaw, *Treponema pallidum* recovered. W. R. positive 2 plus. Was given six intravenous injections of neo-arsphenamine 0.6 to 0.9 at weekly intervals. No mercury was given.

Patient discontinued treatment; five months later was called to see him at his home on account of a pustular eruption which he thought was smallpox and which had remained unchanged for one week; typical pustular eruption of syphilis, W. R. 4 plus. This eruption promptly disappeared under anti-syphilitic treatment.

Case V. Male, age 24, appeared at clinic with secondary eruption of syphilis. W. R. 4 plus; was given two courses of anti-syphilitic treatment. Each course consisting of eight intravenous injections of neo-arsphenamine and ten doses of intramuscular bichloride of mercury. The W. R. persisted as a positive 4 plus. Ten intramuscular injections of sodium potassium tartro bismuthate was given the patient twice a week, W. R. 4 plus. Two months later after the bismuth was given the patient returned complaining of sore throat. Examination revealed the tonsils greatly enlarged with the outer surfaces almost pure white, a typical syphilitic involvement of those parts.

Case VI. Male, age 24, infected with syphilis in the early part of 1923, W. R. 4 plus. Was given eight doses of neo-arsphenamine and eight injections of salicylate of mercury gr. 1, discontinued in July, 1923. Came to office as a private patient in September, 1923, with headaches, dizziness, failing vision in the right eye, mucous patches on the tongue, gen-

eralized recurrent roseola and marked papular eruptions in the palms of the hands and soles of the feet. W. R. 4 plus.

Since that time he has been given twelve intravenous injections of neo-arsphenamine 0.6 to 0.9 grams, twenty intramuscular doses of bichloride of mercury, gr. 1 to gr. 2, twice a week and protoiodide of mercury gr. $\frac{1}{4}$ t.i.d. by mouth. The central nervous system symptoms have disappeared, the roseola, palmar and plantar eruptions have resolved, but the mucous patches on the tongue have persisted.

Fifteen cases in all can be cited, but this number is entirely sufficient to give the lay of the land in the treatment of early syphilis. The significant fact is that this early syphilis recurred after intensive treatment with the mercurials and arsenicals.

(a) Why did it occur?

(b) How should this recurrent syphilis be treated?

In the United States Hygienic Laboratory in Washington, D. C., an interesting set of experiments were conducted. Rats infected with the *trypanisoma equiperdum* which has a life cycle of seventy-two hours were treated with non-lethal doses of arsphenamine, for the trypanisomes, and the dosage gradually increased far past the lethal dose for the non-sensitized organisms without causing the death of the trypanisomes. In other words these organisms were made arsenic fast. These arsenic fast trypanisomes were then passed through many untreated rats and retained their arsenic fast properties almost as strong as in the beginning. This experiment clearly proved that once the trypanisome is arsenic fast it retains that property almost indefinitely. Since the treponema pallidum belongs to the same family as the trypanisome, it is natural to conclude that it will become arsenic fast in the same manner. That is, a given syphilitic patient who has had small doses of arsphenamine spaced at too great intervals, will develop an arsenic fast spirillum. This arsenic fast spirillum is then transferred to a new individual and this unfortunate individual is infected with an organism which resists the arsenicals from the very beginning.

The arsphenamines have been used for twelve years, thousands of physicians have used it on millions of patients. The great majority of cases have had irregular and insufficient treatment, due first to the fact that nearly everyone feels himself competent to treat syphilis and, second, to the fact that the majority of these patients gave up treatment too early.

It is conceivable that due to these unfortunate circumstances, we have developed a race of treponema pallidum which are more or

less arsenic fast and that the future treatment of syphilis will become increasingly more difficult with the arsphenamines. It is also conceivable that in recurrent syphilis we will have to discontinue the arsenicals and rely almost altogether on the mercury compounds, or to some new chemical compound with the same benzol ring but with an antimony substitution of the arsenic.

Furthermore, I am in accordance with Hazen who states that if we fail in an abortive cure, the subsequent recurrent syphilis is of unusual virulence and difficult to control with the usual therapeutic measures.

It must be remembered, however, that before the use of arsphenamines many cases of early malignant syphilis occurred which would not respond to the most energetic treatment.

Whatever our conjectures, these facts remain:

(1) Recurrent syphilis is far more common since the use of the arsphenamines.

(2) This type of syphilis is by far the most difficult to treat and the arsenicals have but little influence upon its course even with the addition of intensive mercury treatment.

(3) Irregular insufficient treatment is the greatest factor in the production of this recurrence.

(4) The individual with this type of syphilis probably started his disease with an arsenic fast organism.

(5) Some new benzol ring combination must be used for this particular type.

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GRADUATES TO MEET

Effort Being Made to Locate Old Grads of Keokuk Medical College

Dr. H. C. Young, of Bloomfield, Iowa, secretary of the class of 1891, Keokuk Medical College is making an effort to locate all graduates of the old school and asks the co-operation of the general public in furnishing information.

On June second, next, a reunion will be held at Iowa City to which each and every graduate of the Keokuk Medical College is cordially invited and urged to attend.

Iowa newspapers are asked to assist in giving this matter publicity. Address all communications to Dr. H. C. Young, Bloomfield, Iowa.

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CONSOLED

"I am hardly ever free from dyspepsia," moaned the cadaveric looking man to his minister.

"What a sufferer your wife must be," was the consolation.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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Medicine and Public Health

It has not infrequently been predicted in various discussions of public health activities that ultimately there would be conflict between the medical profession and public health bodies, particularly those of official character. Apparently no line of definite demarkation has been drawn between the legitimate scope of public health service and the rights and privileges of physicians. So that whenever a group of physicians feel that any branch of public health service has encroached upon their legitimate rights a conflict begins. In the early fall it was reported that in a certain Illinois town where three physicians had been employed regularly to inspect the physical condition of school children, this duty had been assigned to a school nurse, and the physicians' services dispensed with. The school board claimed that a saving of \$900 per year was made thereby. The difficulty seems to have grown out of certain objections made by the physicians to the school nurse making diagnoses. Naturally these physicians feel that in assigning to a nurse the duties they had been employed to perform, their legitimate privileges had been encroached upon. In other communities, however, where these duties have always been performed by school nurses, no outcry from

the physicians is heard. In fact they usually prefer to let the school nurse look over the children, pick out the ailing, label the ailment if she likes, and send the case to the doctor for treatment—just so she is impartial in the distribution of the patients. The doctor need not accept the diagnosis made by the nurse. This custom, for various reasons, should be more conducive to harmony in the medical profession than where one or more physicians be appointed to perform the duties.

The free clinic is now perhaps the most fertile ground for the development of disaffection. Not long ago the medical society of one of the large eastern cities declined to co-operate with a certain highly endowed lay organization in a series of tuberculosis clinics unless they could dictate the plans and policies to be followed. Recently, on its being reported that the Rotary Clubs would conduct clinics for crippled children throughout the State, the Council of the Illinois State Medical Society adopted resolutions to the effect that the Rotary Clubs should not enter in medical practice and that the local medical men, many of whom are Rotarians, can efficiently render the same service: "that the Illinois Medical Society, through its Council, condemn and advise against such arrangements, and recommend that these crippled children's clinics supported by Rotary be conducted by the local medical and surgical men in the various counties where same are to be conducted." The resolutions offer assurance of hearty co-operation if this plan is adopted.

At the same meeting, the Council of the Illinois Medical Society believing "that all state subsidies pertaining to health should be limited and that the problem of free clinics and indigent care should be given most serious consideration, in order that the state refrain from a growing tendency to pauperize its people and in order that there be no encroachment upon the legitimate rights and the privileges of the medical profession" adopted the following resolution:

"Whereas, the medical profession of the state of Illinois are agreed, in the common opinion, that the State Board of Health of Illinois has gone beyond its legitimate bounds in certain matters of Public Health, and

"Whereas, physicians of Illinois feel that

they should have some representative voice in public health matters, which they at present have not, and should be privileged in helping shape the policies of the Illinois State Board of Health.

Be It Therefore Resolved: That, we the Council of the Illinois Medical Society, through our good offices, offer to the Director of the Department of Public Health our hearty co-operation and place at his disposal our services which we feel might be helpful, and

Be It Further Resolved: That we petition the Director of Public Health for a par lance, annually or semi-annually as the case may necessitate, or as it may be desired, in furtherance of a plan for harmony, the State's welfare and the public's good."

Whether the medical profession should, if it could, control or limit the scope of activities of the various public health organizations both lay and official is a question about which there may be different opinions.

Not so many years ago nearly every city with more than 25,000 inhabitants was the seat of one or more medical colleges in connection with which free clinics were conducted for the benefit of the faculties and the instruction of the students. When all but a selected few of these medical colleges were annihilated, not by the medical associations out by the influence of a privately endowed lay organization, the free clinics, which were rarely to any extent supported by private or public funds, naturally ceased to function.

The faculties of the defunct medical schools could see no reason for continuing these free clinics which, so far as they were concerned, had served a purpose which no longer existed; nor, had they been so inclined, was there any encouragement to solicit support for their continuance from a public which had shown no interest in their existence. These men, by their indifference or their lack of foresight, lost an opportunity to lead in a movement in which now they must be content to follow. Now that the people are impressed with the demand and the need for free clinics, and convinced of the benefits they may confer, various lay organizations are sponsoring them. They do not ask the medical societies to establish them, they establish them themselves and invite the doctors to assist.

Some years ago the idea of periodic examinations was conceived and carried out in some of our larger industries and among policy holders of one of our most extensively known insurance companies and finally put upon a commercial basis by a properly incorporated and highly influential lay organization. Since the value of periodic examinations has been demonstrated and the idea popularized until it has become a demand the medical profession is invited to assist or co-operate in the perfection of a universal system and a campaign for its introduction.

No permanent dividing line can ever be fixed between the functions of official public health service (Government, State, Municipal) and the practice of medicine. Every advance made in preventive medicine is an encroachment on the field of the practitioner. The two must co-operate. There is nothing else for the medical profession to do even though such co-operation means its ultimate absorption by the public health service.

We must also co-operate with all of these lay organizations in the humanitarian movements that we as an organized medical profession failed to inaugurate. It is now too late to lead but with our knowledge and skill and technic, we can promote efficiency in the work to be accomplished.

It is doubtful if the medical profession could, by its own efforts, have secured the financial support essential to the successful promotion of these enterprises for the public health. The medical profession has not demonstrated its ability to enlist any considerable support for its own or the public's welfare. The reconstruction of our medical educational system was accomplished by lay capital and lay interest. Our large hospitals and our medical schools are either supported and controlled by the State or by laymen or lay organizations. Much of what we know of the prevention and cure of disease must be credited to the extensive research conducted at the expense of public funds and funds contributed by laymen.

He is blind indeed who does not recognize the rapidly increasing dominance of medicine by lay interests and lay influence and lay capital. He must have a narrow and selfish

point of view who fails to appreciate the great possibilities offered in the interest of large capital in the development of medicine.

The medical profession will gain more by co-operation than by opposition, and it is hardly in a position to dictate to those who provide the methods and the means by which it may demonstrate its much vaunted concern for the public health. It is a wonderful opportunity to prove the truth of the assertion so frequently made by friendly orators that our profession is the only known group of men that are persistently and conscientiously endeavoring to destroy their own means of livelihood.

Fair Legislation

Most physicians, at least, are willing to admit that any medical legislation, intended to protect the people against incompetence, should provide for a fair but adequate test of the qualifications of those who are licensed to treat the sick in any manner. However there is difficulty in drafting a law that will meet this requirement and at the same time meet the approval of both the profession and the public; or, when such a bill has been submitted to the legislature, secure its passage with its efficiency undamaged by numerous alterations and amendments—particularly amendments intended to exempt this or that sect from its provisions. The question is always raised as to the efficient and impartial administration of such a law. Experience should teach something along this line and we have the experience of Kentucky extending over a period of thirty-five years during which a law of this kind has been administered with satisfaction to the people and the profession according to an editorial in the *Kentucky Medical Journal* from which we quote the following:

“Under the Kentucky law, the State Board of Health conducts the examination of every person, of whatever school or system of practice, before they can legally examine any well or treat any sick individual in the State. This examination is the same for graduates of regular schools of medicine or for those who have been trained as homeopaths, eclectics, osteopaths, optometrists, chiropractors, chiropodists, anesthetists, naturopaths, electrotherapists, napropaths, mechanotherapists, physiotherapists or those who prac-

tice suggestive therapeutics. At the same time that they are examined in these fundamental branches, they are also tested for their knowledge of their system of therapeutics by examiners of their particular school. All examinations are conducted by numbers. After the papers are graded and passed on as result of the examination, the identity of the candidate is disclosed. There is no possibility under the law for discrimination either for or against a candidate of any method of practice. Each “tub stands on its own bottom” and the qualified practitioners are welcome in this State regardless of their school or system of practice. After the candidate has successfully passed his examination he is given a certificate entitling him to practice. This certificate is given on condition that he shall not be an itinerant under any circumstances; and every candidate is required, as a part of the contract upon which his certificate is issued, to sign an agreement that he will not make any advertisement or announcement to the public which is false.

The law provides for the revocation of certificates for the commission of criminal abortion, conviction of a felony, fraud in the application for a certificate or in the examination, for failure to record birth and death certificates, for failure to use the nitrate of silver solution, required by law for the protection of the eyes of newborn babies, for violation of prohibition laws, for chronic inebriety or the use of habit forming drugs, or for other grossly unprofessional conduct of a character likely to deceive or defraud the public.”

CHIPS

After looking over a series of pre-operative and postoperative pictures of cases operated upon for the correction of deformities of the external nose, one cannot help wondering if the patient was as well satisfied with the cosmetic results as the surgeon seemed to be with his skill.

Butterfield, discussing what happens to patients discharged from hospitals for the insane, reports that 250 patients discharged in 1918 were investigated in 1920 and 1921. 63 per cent were capable of living out of the hospital. Three have committed suicide. Ninety have been returned to a State Hospital but of these 26 have been once more successfully discharged. 178 have been economically successful. 23 of these were on a higher occupational level than before. (*American Jr. of Psychiatry*, Oct. '21).

The Metropolitan Life Insurance Company

reports a considerable increase in the mortality from alcoholism among its policy holders during the past three years. In 1920 the rate was 0.6 per 100,000, in 1921 it was 0.9, in 1922 it was 2.1, and in 1923 it was 3.0. This is the highest rate recorded since 1917 when it was 4.9 per 100,000. The report, however, shows a continued decline in the mortality from tuberculosis for the past twenty years. The mortality rate from this disease for 1923 was 110.2 per 100,000 while ten years ago the rate was 206.7.

Since 1915 considerable interest has been shown, especially in France, in the so-called "Twort-d'Herelle phenomenon" or bacteriophagy. The phenomenon is demonstrated by d'Herelle as follows: Add to 50cc. of broth a bean sized mass of stool from a typhoid or dysentery patient in early convalescence; incubate eighteen hours; filter through a porcelain filter; add a drop of this sterile filtrate to a cloudy broth culture of typhoid or dysentery bacilli and incubate the contents of this tube for eighteen hours. At the end of this time the bacterial culture will have been completely dissolved leaving a broth as clear as before it was inoculated. A drop from this dissolved culture will in the same length of time cause lysis in another cloudy broth culture, and so on. D'Herelle claims to have observed with the *ultramicroscope* the development in certain bacteria of about eighteen granules. The organisms containing these granules become swollen and spheric and finally burst liberating the granules. The opponents to d'Herelle prefer to believe that the phenomenon is due to autolysis produced by the bacteria themselves.

Clinicians find some little interest in the subject of acidosis and much apprehension for the subjects of acidosis. The margin between acidosis and alkalosis is rather small. Van Slyke has given the maximum normal range of variation in blood reaction in different individuals as pH 7.30 to 7.50 and states that the extreme of reaction compatible with life lies approximately between 7.0 and 7.80. With a pH below 7.0 coma usually occurs, with an alkalinity represented by pH 7.80 or over tetany will be present. While the determination of acetone and diacetic acid in the urine of diabetic patients is of considerable diagnostic value it does not tell much of anything as to the severity of acidosis.

From a very comprehensive review of the evidence which has so far been presented on the probable existence of a bacteriophage, Donald S. King (*Medical Clinics of North America*, Nov. 23) reaches the following con-

clusions: "The nature of the new lytic substance is not yet known. No crucial experiment has been devised. The evidence for its being an autolytic ferment seems to be increasing, but no one has proved that it is not a living organism. Whatever its nature it may have therapeutic possibilities as a parasite on bacteria; a ferment which will lyse bacteria or stimulate them to autolysis; or a vaccine acting on the cells of the host. The therapeutic trials, up to the present, are few and contradictory, but they offer some hope in the treatment of certain infections for which at present we can do little."

This is a very conservative evaluation of the evidence brought out in his paper.

Oxygen unsaturation of the blood is the difference between its oxygen capacity and its oxygen content. The oxygen capacity of the blood in normal resting persons is estimated as 21.2 cc. per 100 cc. The arterial oxygen content, however, is 20.0 cc. an unsaturation of 1.0 cc or 5.0 per cent. The venous oxygen content is 15.6 or 26.8 per cent. The cyanosis which occurs in pneumonia seems to be associated with an increase in arterial oxygen unsaturation. In a series of sixteen fatal cases of pneumonia Stadie found a mean arterial unsaturation of 32.0 per cent and a mean venous unsaturation of 57.0 per cent. In the same number of non-fatal cases he found a mean arterial unsaturation of 13.9 per cent and a mean venous unsaturation of 36.3 per cent.

In connection with a clinical report of a case of acute lymphatic leukemia, Williamson (*Medical Clinics of North America*, Sept.), mentions the case of a child in which a blood count showed a white count of 180,000 with a great predominance of large lymphocytes and which was diagnosed leukemia, but proved later to be pertussis. He also stated that he had seen a white count of over 100,000 with a great increase in the large mononuclears in a straight septic process in which there was no suspicion of leukemia.

In a recent contribution to the *Medical Clinics of North America* Ralph H. Major suggests that acidosis is a frequent and often fatal complication of hyperthyroidism. In the cases noted there has been prompt response to alkaline therapy. It is probably frequently overlooked. It is probably due to the altered metabolism associated with the hyperthyroidism.

Ordinarily typhoid vaccine is administered at intervals of seven days. It is said that if the interval is less than seven days, the im-

immunity may be less than after longer intervals. It is asserted also that the maximum response follows when the intervals between the injections are lengthened to eighteen or twenty days. No definite statement can be made as to what the optimal intervals really are. Immunity after antityphoid inoculation is not absolute. Army medical officers express the opinion that immunity from inoculation begins to decline in from two to two and one-half years; but even after four and five years, the typhoid rate of inoculated troops has been estimated at about one-fourth that of uninoculated troops. (Jr. A. M. A., Feb. '24.)

When injected intravenously into man in doses of 3 mg. per kg., flumerin has caused the disappearance of spirochetes from primary and secondary syphilitic lesions. Flumerin has brought about resolution of the lesions and in about one-half the cases changed a positive blood Wassermann reaction to negative. In tertiary syphilitic lesions resolution of the lesions with a disappearance of a positive Wassermann was brought about in a majority of cases treated. The dose of flumerin H. W. and D. is from 0.002 to 0.005 gm. per kg. of body weight injected intravenously in 2 per cent aqueous solution. The drug is marketed in tubes containing respectively 0.15 gm., 0.20 gm., 0.25 gm. and 0.30 gm. by Hynson, Westcott and Dunning, Baltimore.

Lichen planus can be usually successfully managed by the intramuscular injection of some preparation of mercury. Mercuric chlorid is commonly employed in a dosage of 0.015 gm. (one-quarter grain) twice weekly. A 1 per cent solution of this drug in physiologic sodium chlorid solution is prepared, and 15 drops injected at the first dose, 20 the second and subsequently 25 at each injection. From eight to sixteen injections are commonly sufficient to clear up the disorder. Local measures for relief of itching may be employed at the same time. (Jr. A. M. A., Feb. 2, '24.)

Although epinephrin is absorbed from the mucous membranes of the nose, throat, mouth, urethra, vagina and rectum, the effectiveness of such modes of introduction is too uncertain to make them popular. The drug is not absorbed from the gastrointestinal canal to induce any appreciable effect. Intravenous administration must be used with extreme caution and the manifestations secured are likely to be rather evanescent. The response to intramuscular injection is considerable. There is a widespread belief that the subcutaneous

administration of epinephrin causes little effect and that the action is decidedly uncertain. However, the relief which is secured from the hypodermic injection of epinephrin in asthmatic patients is evidence that absorption by this route is rapid and satisfactory. It probably proceeds by lymphatic rather than by blood vascular channels. (Jr. A. M. A., Feb. 9, '24.)

"Even at the risk of repetition, it should be pointed out that the symptoms of hypoglycaemia due to an overdose of insulin may come on while the patient is asleep, and also that they are sometimes not unlike those of the late stages of many cases of coma. When insulin is used for the treatment of diabetic coma, therefore—and its value here is unquestioned—the physician must see to it that the blood sugar is not lowered to the level at which hypoglycaemia symptoms supervene. Experience has shown that these symptoms can be recognized at their onset and their development, so that, their occurrence is no longer to be feared as a risk." (Insulin Committee.)

Reflections

BY THE PRODIGAL

It is related of Coue when he returned to France from America that the Parisians were anxious to know how his "I am feeling better and better every day in every way" took in America.

"Very well," said Coue, "but the Americans, to save time, have shortened my saying to the slogan 'Hell! I'm well.'"

Mt. Lassen in California is the only live volcano in the continental U. S. Its evanescent ebullitions are attributed to a psychoneurosis of real estate agents, and mythical vicarious healers subconscious minds causing the psychoneurotic disturbances.

A high grade civilization cannot be built up out of a low grade humanity. One of the greatest, if not the greatest, responsibilities resting on the medical profession is its duty to raise the grade of humanity.

The epidemic at Santa Anna, California, where there were more than 2000 cases of sickness which the State Health doctors diagnosed as "Intestinal Flu," proved to be caused by sewage getting into the water main supplying the drinking water. Some cases of typhoid fever have developed.

Moral. Guessing is not safe unless it hits.

Strange what an unsavory name "Empiricism" is to some of us. Instinct (?) and ex-

periment taught us our choice of foods for a long time. Science is classifying the knowledge of facts proven by instinct and experience. That is all. We should not get too chesty, for some of us may have to do a little experimental work yet in perfecting our menu—and also our diagnosis.

We are now told that the origin of the saying that "man is nothing but a worm" is because he so easily falls a prey to the alert chicken.

It was Dr. Franz Joseph Gall, in the 18th century, who originated the system of phrenology. He had his gall with him. The proclaimed system did not prove to systematize—long. However, it did good in that it helped to enlighten the dark, superstitious and pyrotechnic mind of the age which groped in the belief of demoniacal possession of the insane, and to show that it was a diseased brain causing insanity instead of a devil.

It was in 1851 that Hemholtz measured the "speed of transit of a nervous impulse" and showed that it traveled along the nerve less than 100 feet per second. Previous to this time a nerve impulse was thought to be instantaneous. The speed of an electric current is 186,000 miles a second. This little difference between the speed of a nerve impulse and that of electricity accounts for a man not knowing what hit him when he is struck by lightning.

All sensory messages received by the body do not go to the brain for a reply. Way stations in the spinal cord attend to some of the calls, thus relieving the brain of too much work. The responsibility and accountability though are checked up by nature against the chief—unless a man had a head one negro described another had with whom he was quarreling. When asked, "What yo 'spose Ise got dis head on for?"

"Head!" said the other negro, "dat's no head. Dat's only a button to keep yo spine from onravin'."

The plant wizard, Luther Burbank, is trying to do away with insecticides by building up a vigorous plant life that will resist the invading enemy. The goal of the medical man is the same respecting disease in human kind. He does not expect to reach the goal of perfection but he can approach nearer to it than he is at present. And he will always have a worthy ideal and an incentive to practice and make his existence worth while.

It was in 1860 that Gustav Fechner intro-

duced the phrase "Physiological Psychology" into medical nomenclature. His definition of psycho-physics—"an exact theory of the relation between spirit and body, and, in a general way, between the physical and the psychic worlds." And it is within the memory of men yet living (1858) that Claude Bernard discovered that there are certain nerves supplying the heart which, if stimulated, cause that organ to relax and cease beating." This discovery of the nerve control of the heart's action led to the final discovery "that the entire nervous system is a mechanism of centers subordinate and centers superior."

It was about the middle of the past century that Dr. Cabanis advocated the theory "that the brain digests impressions and secretes thought as the stomach digests food and the liver secretes bile." Scientists have discredited the theory, but at times it is hard to kick against the pricks.

How many of us know where the "vital knot" is as first described by Flourens? It is in the same place yet.

Vicarious function is where one organ takes upon itself the duty or work of another organ. This is demonstrated in suppression of menstruation when the lungs perform the monthly duty. "It is seen also in the destruction of a brain center and consequent loss of function where there is a gradual restoration of function, showing that other centers have acquired the capacity to take the place of the one destroyed."

Physical health is not worth while to a man if he has not brain health and brain health is not worth much more than a good mutton chop unless it is cultivated.

Moral. We should conserve mental health and efficiency as well as physical health and efficiency by proper exercise.

Mental hygiene should be as assiduously cultivated and practiced as physical hygiene to round out a successful ideal physician or other human. By such culture unrest would be lessened, people "will think better, feel better and act better than they do now." And it would be a preventive of insanity.

A psychological test preceded the marriage of Miss Robinson, sophomore of the University of California, and D. McKenzie, a medical student, to determine their compatibility, likes and dislikes to prove their fitness to fit. The examination proved their oneness in thought and they were married. When the medical man and health authorities are con-

fronted with the cold facts it appears that there is equally as urgent necessity for a psychological test and proof of compatibility of the psychic as there is of a physical examination to determine the healthy normal body of the proposed martyrs to Cupid.

A repetition, coincident, habit or innate—edness? Dr. Mayo is reported to have said, "there are only 5000 of the 50,000 surgeons in the United States who are thoroughly capable to practice surgery."

Hippocrates (470-460 B. C.) said, "Medicine is of all the arts the most noble, but, owing to the ignorance of those who practice it, and those who inconsiderately form a judgment of them, it is at present far behind all other arts. Their mistake it appears to me to arise principally from this, that in the cities there is no punishment connected with the practice of medicine (and with it alone) except disgrace and that does not hurt those who are familiar with it. Such persons are like figures which are introduced in tragedies, for as they have the shape and dress and personal appearance of an actor, but are not actors, so also physicians are many in title but very few in reality."

Moral. It's a long time between drinks, but it is the same identical stuff.

However a few years later 1570 A. D.) we are told that the physician was forbade to shed blood. By a law of the church in France, the shedding of blood was left to the surgeons and barber surgeons. Physicians at the present time ignore the church rule. The barbers continue to exercise their pontifical rights.

SOCIETIES

NORTHEAST KANSAS SOCIETY

The regular meeting of the Northeast Kansas District Society will be held in Lawrence, Thursday, March 27.

GOLDEN BELT SOCIETY

The Golden Belt Medical Society met at Salina, January 23, 1924, at St. John's Hospital. Dr. W. E. Fowler, President of the Saline County Society, in the absence of both president and vice-president of the Golden Belt Society, presided. A clinical program was presented by the members of Saline County Society after which the meeting adjourned to Lamar Hotel where the Society were guests at dinner of the Saline County Society. At 7:30 the meeting was re-opened at the Chamber of Commerce and a short business session was held. Papers were given by Dr. L. F. Barney, Kansas City, Kansas, and Dr. E. H. Skinner, Kansas City, Mo., which were very interesting and instructive.

It was voted to hold the next meeting of the Golden Belt Society at Topeka in April. The following members were present: Drs. D. R. Stoner, P. R. Young, J. D. Riddell, E. J. Lutz, G. M. Powell, G. F. Davis, E. G. Padfield, E. R. Cheney, Perry Lloyd, A. L. Bergren, C. M. Jenny, H. E. Neptune, G. E. Neptune, W. E. Mowery, Art O'Donnell, Claire O'Donnell, E. G. Ganoung, A. G. Anderson, C. M. Fitzpatrick, O. R. Brittain, A. D. Gray, W. E. Fowler, Ned Cheney, E. L. Vermillion, E. S. Skinner, Kansas City, Mo., L. F. Barney, Kansas City, Kan.

CLAY COUNTY SOCIETY

The annual banquet of the Clay County Medical Society was held at the Bonham Hotel, Clay Center, at 7:30 o'clock. Forty-one persons were present. Dr. Russell L. Hayden, of the University of Kansas School of Medicine, talked on "Focal Infection in Relation to Systematic Disease," illustrating with lantern slides. His subject was most ably handled.

C. E. EARNEST, Secy.

PRATT COUNTY SOCIETY

Pratt County Medical Society met at the Commercial club room in Pratt, on December 3, 1923.

Dr. L. C. Joslin was admitted to membership.

Dr. Athol Cochran was elected President of the Society for the coming year. Dr. E. M. Ireland was elected vice president; Dr. G. E. Martin, secretary; Drs. P. K. Gaston, M. C. Jenkins and H. Atkins, censors.

On January 7, 1924, the Society met at the usual time and place. Dr. J. T. Scott, of St. John read a paper on "The Immunizing Mechanism of the Body." The theories of immunity which have been set forth in the past were duly recorded and discussed. Our more recent knowledge of the physiological action of the internal secretion of the thyroid, thymus and pituitary glands was applied to the problem of how the body defends itself against bacterial invasion. Dr. C. E. Phillips read a paper on "Focal Infection." The recent statistics bearing on the source and frequency of focal infection were applied to modern diagnostic problems. Both papers were discussed by all present. A vote of thanks was given by the Society to Dr. J. T. Scott for his paper.

On February 4, 1924, Dr. L. C. Joslin read a paper to the Society on "Nephritis." Dr. J. R. Campbell followed with a discussion of some of his recent experiences in the prevention and treatment of eclampsia. These allied subjects formed the basis for discussion and the detail of personal experience.

Much more than a majority of the members of the Society were present at each meeting.

G. E. MARTIN, Secy.

DEATHS

Chas. Edward Steadman, Junction City, Kansas, aged 80, died February 1, 1924, of senility. He was graduated from Rush Medical College in 1866.

Robert M. Moore, Olathe, Kan., aged 56, was killed when the automobile which he was driving was struck by a train, January 21, 1924. He was graduated from the Medical Department of Washington University, St. Louis, in 1892.

Albert M. Dawson, Topeka, aged 76, died at his home, Feb. 27, 1924, after a prolonged illness. Dr. Dawson was born in Ohio in 1848. He graduated from the St. Louis Eclectic Medical College in 1877 and located at Meriden, Kansas the same year. He moved to Topeka in 1897.

Ernest Joseph Lutz, Kansas City, Kansas, a graduate of St. Louis College of Physicians and Surgeons, 1891; died at Bethany Hospital, Kansas City, Kansas, on February 6th, 1924, age 58. Death followed operation for diabetic gangrene of foot. Dr. Lutz was a member of the American Medical Association, Kansas State Medical Society and the Wyandotte County Medical Society. He had taken a post-graduate course at University of Heidelberg and University of Berlin in 1895-1896. He taught internal medicine at Kansas University 1905-1912. He died after thirty-six years of active practice in Kansas City, Kansas.

BOOKS

Hernia, its anatomy, etiology, symptoms, diagnosis, prognosis and operative treatment, by Leigh F. Watson, M.D., Associate in Surgery, Rush Medical College. Published by C. V. Mosby Co., St. Louis. Price \$11.00.

This is a book of over 600 pages and it describes every kind of hernia and its proper treatment. It is complete. The operations are described in great detail and the procedures illustrated. It hardly seems probable that any more could have been written on the subject.

Geriatrics, a treatise on the prevention and treatment of diseases of old age and the care of the aged, by Malford W. Thewlis, M.D., Editor Medical Review of Reviews, etc. Second edition revised and enlarged. Published by C. V. Mosby Company, St. Louis. Price \$4.50.

There are diseases peculiar to old age and peculiarities of diseases in old age. A study

of these is quite as important as a study of the diseases of childhood. The author believes that prevention here lies in early recognition—years before prominent symptoms are manifested. The author believes that opotherapy is a valuable aid in treating senile diseases and in preventing senile degeneration.

Management of the Sick Infant, by Langley Porter, M.D., Professor of Clinical Pediatrics, University of California Medical School; and William E. Carter, M.D., Assistant in Pediatrics and Chief of Out Patient Department, University of California Medical School. Second revised edition. Published by C. V. Mosby Company, St. Louis. Price \$8.50.

The purpose of the authors is to present the peculiarities of disease as it occurs in infants. The general principles are discussed in a scientific but very practical way. It is important first to understand the causes of disturbances of function. The work is based upon continual observation of the manifestation of various diseases in the infant. The second edition has been revised and improved.

Neurologic Diagnosis. By Loyal E. Davis, M.D., Associate Professor of Surgery, Northwestern University Medical School; Fellow of the National Research Council. 12mo of 173 pages with 49 illustrations. W. B. Saunders Company, Philadelphia and London: 1923, Cloth, \$2.00 net.

The author has attempted to correlate symptoms with known anatomic and physiologic facts and to establish this as a basis for neurologic diagnosis. Case histories are used to illustrate certain relationships. The purpose of the book, as the author states, is to bridge between the text-book on the anatomy of the nervous system and the clinical text of nervous diseases.

Practical Chemical Analysis of Blood by Victor Caryl Myers, M.A., Ph.D., Professor and Director of the Department of Biochemistry New York Post-Graduate Medical School and Hospital. Second revised edition. Published by the C. V. Mosby Company, St. Louis. Price \$4.50.

With the advances made in the field of biochemistry there have come many practical tests with which it is most important that both the internist and surgeon should be familiar. Even if he depends upon a commercial laboratory for the work required he must know something himself of the procedures employed. This book covers the field excellently well.

Operative Surgery. Covering the Operative Technic involved in the operations of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S., Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index volume. Now ready—Volume I containing 850

pages with 921 illustrations. Volume II containing 877 pages with 1008 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.

Part I of the first volume has to do with the general procedures employed in surgical operations and describes the aseptic and antiseptic agents and methods, materials to be used, sutures, ligatures, drainage tubes, sponges, etc. A very complete chapter on anesthetics and anesthesia. A chapter on operative technic, etc. Part II takes up general operative surgery—skin grafting, plastic surgery, amputation, etc. Little, if anything, seems to have been omitted on the subjects treated.

Vol. II—General operative surgery is completed in this volume and in which is included a very thorough description of operations upon bloodvessels and upon lymphatic glands and vessels. There is a chapter on operations upon nerves, plexuses and ganglia and another very interesting chapter on operations upon bones. Part III takes up special operative surgery—operations on the skull and brain, on the spine and cord.

A very large field has been covered in the first two volumes and it is reasonable to expect that succeeding volumes will leave little to be said on the subject.

Genito-Urinary Disease and Syphilis, by Henry H. Morton, M.D., Professor of Genito-Urinary Diseases and Syphilis in the Long Island College Hospital, etc., etc. Fifth edition revised and enlarged. Published by Physicians and Surgeons Book Co., 353 West 59th St., New York. Price \$10.00.

During the six years that have elapsed since the former edition of this book was published a good many important advances have been made and the author has endeavored to include these in the text of this edition. As aides and contributors to this volume will be noted Archibald Murray, Carl H. Laws, Alfred L. L. Bell, Alfred Potter, L. C. Johnson, and Albert M. Judd. The illustrations are numerous and appropriate.

Lectures on Endocrinology, by Walter Timme, M.D., Professor of Nervous and Mental Diseases, Polyclinic Medical School and Hospital, New York, etc., etc. Published by Paul B. Hoeber, Inc., New York. Price \$1.50.

This little book of 120 pages by Timme is a very concise presentation of what is at present known about the endocrines. The influence of the thymus, pineal, thyroid, suprarenal and pituitary glands and the gonads are carefully explained and illustrated.

International Clinics, Vol. IV, Thirty-third series, edited by Henry W. Cathell, M.D., with the collaboration of Chas. H. Mayo, Hugh S. Cummings and

others. Published quarterly by J. B. Lippincott Company, Philadelphia.

A symposium on gastro intestinal ulcers by Mathew J. Stewart, England, first attracts our attention on account of the thoroughness of detail in the morbid anatomy. Roentgen examinations of the oesophagus, stomach and duodenum by Grover, Christie and Merritt is excellently illustrated and the analysis instructive. Many will be interested in an article by Sherwood-Dunn on the cause of chronic diseases and their treatment by entero antigens. Every article in this volume is interesting and most of them of considerable practical value.

American Illustrated Medical Dictionary (Dorland). A new and complete Dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with the Pronunciation, Derivation, and Definition. Twelfth Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M.D. Large octavo of 1296 pages with 338 illustrations, 141 in colors. Containing over 3000 new words. Philadelphia and London: W. B. Saunders Company, 1923. Flexible Leather, \$7.00 ret; thumb index, \$8.00 net.

A recent edition of a good dictionary is indispensable to one who cares to read intelligently much of our current medical literature. The number of new terms inflicted upon us every year is appalling but—whether they indicate advance in medical knowledge or are devised to designate the things we don't know—it is essential that we try to learn them. Dorland's comes as near meeting the requirements for a convenient, up-to-date dictionary as one may expect. The twelfth edition has something like 3000 new words.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume III Number V (Minneapolis, St. Paul Number, October, 1923), 300 pages with 200 illustrations. Per Clinic year (February, 1923, to December, 1923). Paper \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

One of the very interesting articles in this number is by Farr, showing some helpful surgical adjuncts and methods. There are clinics by Adair, Cole, Colvin, Dennis, Geist, Lerche, Lewis, Litzenberg, Ritchie, Schwyzer, Thomas and Wilcox.

Surgical Clinics of North America, Kansas City Number.

Our readers will be especially interested because the contributors are all known to them and because the cases described are of unusual interest. Among the contributors we note: A. E. Hertzler, C. C. Nesselrode, R. D. Irland, C. B. Francisco, R. L. Diveley, F. D. Dickson, J. Edward Burns, H. J. McKenna, Nelse F. Ockerblad, Robert M. Schauffler, E. D. Twyman, H. R. Wahl.

The Medical Clinics of North America (Issued Serially, one number every other month). Volume VII Number III, November, 1923. (Boston Number.) Octavo of 421 pages and 66 illustrations. Per clinic year (July, 1923 to May, 1924). Paper \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In this number there are very instructive articles on the treatment of diabetes by Joslin, Fitz and Gray. McClure has an article on observations on the diagnosis of gall stones with illustrative cases. Among the subjects of more recent interest is Bacteriophagy by King. This number contains so many interesting articles that it is impossible to mention all of them.

The Medical Clinics of North America (Issued Serially, one number every other month. Volume VII Number IV, January, 1924. (University of Kansas Number.) Octavo of 313 pages with 66 illustrations. Per clinic year (July, 1923 to May, 1924. Papers \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The January, or University of Kansas number of the Medical Clinics will of course attract some attention in this part of the country. The contributors are practically all well known to our readers. To mention their names without attempting to mention the subjects discussed will be amply sufficient. These contributors are Ralph H. Major, P. T. Bohan, L. S. Milne, R. L. Haden, G. H. Hoxie, D. R. Black, Logan Clendinning, H. C. Berger, F. C. Neff, D. Walthall, Hugh L. Dwyer, Richard L. Sutton, C. C. Dennie, W. K. Trimble, P. F. Stookey, W. W. Duke, D. D. Stofer, R. C. Davis, W. A. Myers, F. J. McEwen, E. T. Gibson, A. L. Skoog, H. R. Wahl.

Medical Clinics of North America, Chicago Number.

In this number Nadler presents the histories of a series of cases of chronic gall bladder disease that are instructive. Hamill reports a series of cases of infantile cerebral palsies that may be considered well worth reading. A good many will be interested in Carr's Clinic on Jaundice. These are only a few of the subjects discussed but are indicative of the whole.

—R—

Inter-State Post-Graduate Clinic Tour

Inter-State Post-Graduate Clinic Tour to Canada, British Isles and Paris in 1925 is now being arranged under the supervision of the Managing-Director's office of the Tri-State District Medical Association, leaving time about the middle of May.

The tour will consume approximately two months time and the total cost from Chicago and back to Chicago again will be less than \$1,000.00. This will include all clinic arrangements and admissions and all traveling

expenses, except meals on Pullmans in America and tips on the ocean steamer. First-class hotels will be used everywhere and the ocean passage will be on the largest and finest of the new one cabin ships.

Clinics are being arranged in Dublin, Belfast, Liverpool, Manchester, Leeds, Edinburgh, Glasgow, Newcastle, London and Paris and other points of clinical interest. The clinics will be conducted by the leading clinicians of these cities. The opportunity will be given subsequently to visit the clinic centers in other parts of Europe.

This tour is open to members of the profession who are in good standing in their State or Provincial Societies and their families and friends.

Sight-seeing programs will be arranged practically every day abroad including the most scenic part of the countries visited without extra cost.

On account of the great demand for reservations, applications should be made as early as possible to Dr. William B. Peck, Managing-Director, Freeport, Illinois. Preference in the assignment of Hotel and Steamship accommodations will follow the order in which the applications are received.

—R—

Important Decision Helps American Chemistry

The decision of the United States Court, District of Delaware, in favor of The Chemical Foundation, Inc., is of far-reaching importance to the medical profession, and to the manufacturers of medicinal chemicals.

It will be remembered that prior to the World War, the medical profession was practically dependent upon foreign sources of supply for many important drugs. Patents were held in this country by foreign owners—not that the drugs might be manufactured here, but that American firms might not make them.

In order to establish and foster the chemical industry in this country, the patents were sold by the United States government to The Chemical Foundation, Inc., so that no exclusive licenses might be issued to American concerns. This plan of devoting these patents to the public use has stood the test of actual trial, and has proven a success. Many of the important medicinal chemicals previously unobtainable from American sources, are now manufactured in this country, and the medical profession now has the assurance that, unless there should be some later and unexpected reversal of this decision, they may never again be dependent upon foreign monopoly in drug supplies.

As stated in Drug and Chemical markets, "The complete exoneration of the officials

and trustees of The Chemical Foundation and the justification of all their plans to preserve an independent chemical industry as a National weapon of defense, is gratifying not alone to them individually, but to all right-thinking and patriotic citizens."

The Oil, Paint and Drug Reporter says editorially, "The effect of the decision should be one of the greatest encouragement. In fact, it should be beneficial to the whole field of chemistry and related science in this country, as it makes clear that chemistry and its allies function importantly in the interest of the public and the nation."

To further foster the use of American-made medicinals, the Federal Trade Commission, the National Research Council, the Council on Pharmacy and Chemistry of the American Medical Association, and other agencies have suggested and provided new and distinctive names for American synthetics which are rapidly replacing those formerly made only abroad.

It has been frequently suggested that physicians might be performing a patriotic duty to use, specify, and refer to these drugs by their American names.

Among the products so designated are arsenamine, nearsphenamine, barbital, barbital sodium, cinchophen, neocinchophen and procaine.

The Chemical Foundation, Inc., also licensed certain manufacturers to make, in this country, acriflavine and neutral acriflavine.

Inasmuch, as "This sale was in effect a sale to America and its citizens, not to persons then engaged in chemical and allied industries," the medical profession is to be congratulated, and it is hoped will take advantage of this opportunity to encourage an independent chemical industry in this country.

—R—

Physio-therapeutic Week in Kansas City, April 10 to 18

The sixth annual meeting of the Western Electro Therapeutic Association will be held in the Little Theatre, Kansas City, Mo., Thursday and Friday, April 17th and 18th, under the presidency of Dr. Harry H. Bowling of Rochester, Minn. A cordial invitation is extended to the medical profession of nearby states.

The preliminary program follows:

"Clinical and Histological Observations in the Treatment of Neoplastic Diseases." Dr. William L. Clark, Philadelphia, Pa.

"The Pathology, Diagnosis and Treatment of Skin Diseases," Dr. C. D. Collins, Chicago, Ill.

"Coagulation Essentials" (lantern slides), Dr. T. Howard Plank, Chicago, Ill.

"Electro-coagulation in Cancer of the Uterus" (lantern slides), Dr. A. David Willmoth, Louisville, Ky.

"What the European Clinics Think of High Frequency Currents," Dr. Joseph E. G. Waddington, Detroit, Mich.

"The Use of Physiotherapy in the Reconstruction of the Industrial Injured," Dr. James E. M. Thomson, Lincoln, Neb.

"The Physio-Therapeutic Treatment of Colitis," Dr. Curran Pope, Louisville, Ky.

"The Use of the Cobalt Blue Lens With Ultra Violet Therapy in the Treatment of Luetic Ulcers," Miss Emma Leah Stewart, Louisville, Ky.

"Radium," Dr. Sanford Withers, Denver, Colo.

"Blood Pressure Interpretations," Dr. Burton B. Grover, Colorado Springs.

Dr. R. W. Fouts, Omaha (title not announced).

Dr. Omar T. Cruikshank, Pittsburgh, "Bright's Disease Treated by High Frequency Currents."

Dr. E. H. Skinner, Kansas City (title not announced).

Dr. William L. Clark and Dr. T. Howard Plank will hold an operative clinic at General Hospital on Friday.

On Tuesday evening, April 15th, there will be a joint meeting of the association with the Jackson County Medical Society, papers being presented by Drs. Clark and Bowling.

—R—

Laboratory Findings in Vincent's Angina

The results of examinations of specimens submitted to the laboratory for Vincent's angina should be carefully interpreted by clinicians.

It is well known that fusiform bacilli and spirochetes which are associated with this type of sore throat can be found in buccal cavities which show no evidence of the ulceration usually attributed to their presence. Opinions concerning the etiological relationship of fusiform bacilli and spirochetes to sore throat vary considerably. On account of the frequent occurrence of these organisms in the lesions and also because the symptoms and local manifestation of the disease are readily cured by the local use or intravenous administration of salvarsan, some observers claim there is no doubt about the microorganisms being specific. Others point to the fact that almost any ulcerative condition of the buccal or pharyngeal mucous membrane will provide suitable conditions for the multiplication of these bacteria which are normally present in smaller numbers.

Recently a post-mortem examination was made on a case which had been diagnosed as Vincent's angina. Specimens from an ulcera-

tive lesion involving the base of the tongue were submitted to a laboratory to be examined for Vincent's angina. Numerous fusiform bacilli and spirochetes were present and the findings were reported to the clinician. At the autopsy an epidermoid carcinoma of the upper part of the esophagus was found.

Of course this is an unusual error, but it illustrates the importance of the interpretation of laboratory results in the light of clinical findings. (Health News, N. Y.)

—————R—————

Divorces Increase in United States

From the Census Office we have received the preliminary draft of the statistics on divorce and marriage in the United States. These are the first figures of this kind available since 1916 and show a large increase in the divorce rate and a slight decrease in the marriage rate for the country as a whole. In 1916 there were 1055 marriages and 112 divorces per 100,000 population. In 1922 there were 1033 marriages and 136 divorces.

Different states differ widely in the number of marriages to one divorce. For example, in New York and in the District of Columbia where the divorce laws are stringent there were respectively 22.6 and 35.8 marriages for each divorce. In Nevada, which is the home for those with domestic difficulties, the ratio was 0.9 or less than one marriage to each divorce. The New England States, despite their high reputation for respectability and conservatism, had an average ratio of 9.0 or less than one-half as many marriages per divorce as New York State. (Health News, N. Y.)

—————R—————

"The Science of Chiropractic"

The author of this work, Vol. I of which is before us, is B. J. Palmer, D.C., Ph.C., head of the Palmer School of Chiropractic, Davenport, Iowa. D. C. and Ph.C., being interpreted, mean "Doctor of Chiropractic," and "Philosopher of Chiropractic," respectively.

Realizing the general need for enlightenment, we take pleasure in presenting a few extracts from this epoch-making treatise.

"To illustrate, it was decided that all diseases of the throat, such as goiter, croup, diphtheria, bronchitis, quinsy and tonsilitis, had their origin in the region of the stomach."

"Chiropractors are fixing typhoid fever and other acute diseases in one or two brief adjustments."

Referring to diphtheria: "Chiropractors find that bacilli are there as result as much as mold found on decaying cheese. . . . The

chiropractor replaces the displaced vertebrae by one move. . . . the symptoms known as diphtheria cease."

"I do not know of a greater humbug than is perpetrated by persons, who outwardly appear sincere in their profession, any more than the contagion theory. . . . what abnormal power has a little bug, on the outside, when he gets inside? Think!"

"What is disease? This question is often asked by the thinking and unthinking alike, and has (outside of Chiropractic) never yet been answered definitely. Many theories have been offered. . . . but they are not of any practical value to a Chiropractor except as illustrations of the foolishness of the so-called 'Medical Science.'"

"Child-bed fever is always caused by a lumbar vertebra being displaced during childbirth."

Referring again to diphtheria: "We have checked the fun of doctors and saved children from being poisoned, by adjusting the vertebra that the pus poisoning was displacing."

"If yellow fever is conveyed from one person to another by the sting of a mosquito, where did the first yellow fever subject get the disease?"

"Smallpox and chickenpox are one and the same disease. A bad case of chickenpox is a mild case of smallpox. . . . In all cases that are classed as such, that we have had the privilege of examining, we have found a displacement of the fifth cervical, the replacing of which immediately returned all abnormal symptoms to normal."

And then the following regarding a man addicted to strong drink:

"At the forth* adjustment, he said, 'The odor coming from a saloon always had an inviting effect, so much so, that I sometimes could not resist the desire of going in and taking a drink; then I was in for a drunken spree. But now that smell is nauseating, repellent instead of inviting.'"

And to think that such knowledge can be acquired in a few weeks! (Health News, N. Y.)

*Original spelling.

—————R—————

Arm Versus Leg As Vaccination Site

The inadvisability of using the leg as the site for vaccination in adults is illustrated by the fact that, out of 37 persons on the staff of the State Department of Health, who had never previously been vaccinated, three so vaccinated lost more than half as much time as all of the other 34 previously unvaccinated ones. One was incapacitated for seven and one-half days, one for eleven, and another for fourteen days. Among the previously un-

vaccinated those vaccinated on the leg lost on the average six times as many days as those vaccinated on the arm.

As was to be expected, the reactions in these previously unvaccinated adults were much more severe than those commonly observed in children. The average days of incapacity per person for all those previously unvaccinated was twelve times as great as for all those who had been vaccinated, however remotely, in the past. The average incapacity for the former was 2.4 days as compared with 0.2 days for the latter. (Health News, N. Y.)

R

Future Policy of the University of Toronto Concerning Insulin

Now that a satisfactory process has been worked out for the manufacture of insulin on a large scale, the Insulin Committee considers that at the expiration of the temporary agreement with the Eli Lilly Co., licenses to manufacture insulin should be granted to other firms who are able and willing to comply with certain conditions imposed by the Committee. The Lilly Co. agrees to assign to the Committee patents covering certain improvements in the manufacture of insulin, that have been elaborated by them. All information in the possession of the Committee, including the various methods involved in the manufacture of insulin, whether patented or not, will be conveyed by the Committee to the licensed manufacturers, it being understood, however, that they on their part agree to put at the disposal of the Committee any new processes which they may devise, whether patentable or not, and that the Committee may then transmit this information to other manufacturers. In other words, the policy is to be that all patents already applied for and all information concerning the manufacture of insulin will be made available for such manufacturers that satisfy the Insulin Committee that they are in a position to undertake the manufacture of this substance. By this arrangement it is considered that the purposes for which the University of Toronto holds the patent rights will be fulfilled, and that the medical profession will be assured of the most satisfactory product at the lowest cost. (*Canadian Medical Association Journal.*)

R

The Banting Research Foundation

The discovery and development of insulin by Dr. F. G. Banting, Mr. C. H. Best and other co-operating investigators has brought relief to a multitude of sufferers from diabetes throughout the world. At a low price this boon has been placed within reach of all. But it is well known that only a beginning has been made in alleviation even of this one

malady. Notwithstanding the magnificent advances that have been effected in arresting or averting many of the most grievous attacks of disease on human life, mankind is beset by enemies. Their strategy must be discovered and circumvented. This can be done only by patient research conducted in the main by skilled investigators who devote their lives to scientific enquiry. For these investigators the public at large must provide the means of support, for they it is who benefit immensely thereby. Such work has been going on quietly all over the world. Laboratories in the universities have groups of investigators working in co-operation under the direction of competent scientists. But only now and then does a result such as Dr. Banting achieved strike the imagination of the world. It is therefore but appropriate that advantage should be taken of it to appeal to the grateful public for support in making possible the continuance and prosecution of this work and of other investigations in medical science. To effect this and to signalize the discovery and the development of insulin, the Banting Research Foundation has been created.

The purposes of this Foundation have been defined to be:

(a) To provide, in the first instance, further funds for the support of the Banting and Best Chair of Medical Research at the University of Toronto.

(b) To establish a fund for the adequate financial support of such scientific workers as may have proposed definite problems of medical research, and for whom funds are not otherwise available. Such assistance may be given to persons working in the University of Toronto or elsewhere.

All financial arrangements in connection with the collection and reception of the principal and subsequent expenditure of the income of the fund have been vested in a Board of Trustees, the members of which are appointed for a term of three years subject to reappointment at the end of their respective terms of office. Trustees have now been appointed as follows:

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Professor V. E. Henderson, M.A., M.B., Professor of Pharmacology, University of Toronto.

Mr. John W. Rogers.

The Trustees propose to make an appeal to the public for funds in the immediate future. Subscriptions to the fund will be welcome at any time and should be made payable to the Banting Research Foundation, Toronto, Canada.

F. LORNE HUTCHISON,
Honorary Secretary.

—R—

A Study of the Acute Infections of the Throat and Respiratory System

The problems involved in the occurrence and spread of the acute respiratory infections are discussed by D. F. Smiley, Ithaca, N. Y. (*Journal A. M. A.*, Feb. 16, 1924). A monthly record of the acute infections of the throat and respiratory system has been kept for the last four years at the Cornell University medical advisor's office. This record has shown, year after year, a gradual rise to a maximum number of cases in January, February or March, and a gradual fall as summer approaches. An analysis of these records apparently shows that tobacco, dust, gas, mouth breathing, sleep, drafts, constipation, perspiration, bathing and footwear are apparently not major factors in determining resistance to respiratory infections in this particular group. Exercise appears as a liability rather than an asset in this group (probably because of improper care of the body in the stage of fatigue following the usual violent sport). The use of woolen underwear is apparently no panacea for the prevention of "colds"; in fact, it seems almost safe to infer that the use of light underwear is preferable under conditions obtaining at Ithaca. Heredity may be a factor in determining resistance through carrying on to the next generation a 'catarrhal diathesis' or the opposite. Since removal of nasal obstructions and diseased tonsils has not resulted in the reduction of the frequent "colds," it seems fair to conclude that nasal obstructions and diseased tonsils has not major factors in the majority of persons suffering with frequent "colds." Of all the factors listed, only one (that of underclothing) showed a difference of more than 15 per cent and that only 19 per cent. A test of the prophylactic value of the present respiratory

vaccines, failed to cause any reduction in frequency of "colds" in the majority of cases.

—R—

The Diagnosis of Pregnancy

The sugar tolerance test was applied by G. C. Milnor and E. A. Fennel, Honolulu, T. H. (*Journal A. M. A.*, Feb. 16, 1924), in cases in which it was important to make a diagnosis concerning pregnancy before the physical signs permitted. Excluding cases of hepatic disease, carcinoma of the alimentary tract and hyperthyroidism, they have performed this test on thirty-eight normal women, either pregnant or nonpregnant. Of the thirty-eight women, eighteen proved, in the course of events, to have been not pregnant, sixteen proved to be pregnant, and four were lost to further observation. Of the eighteen nonpregnant women, seventeen gave a negative test, i. e., developed no glycosuria and one gave a doubtful reaction. Of the sixteen women proved to be pregnant fifteen gave positive reactions and one a negative one. This failure is interesting since the test was performed ten days after the first coitus and five days after the first missed menstrual period. The authors' experience with phlorizin has been disappointing. In seven cases of proved pregnancy five gave positive reactions and two very doubtful ones. Of twelve nonpregnant cases including three men all gave positive reactions except two women. In making the simple sugar tolerance test they use from 50 to 100 gm. of glucose, depending on the weight of the patient. The blood sugar at the forty-five minute period is the most important of the three estimations; the other two may be omitted if time and circumstance demand it. The authors found that nausea or vomiting if present in the pregnant patients, rather regularly occurs at the forty-five minute period, at the height of the blood sugar curve. They have found that the sugar tolerance test is of great practical value during the first three months of pregnancy, and that the positive reaction usually disappears thereafter, but frequently reappears during the last two months and persists, several weeks after parturition. A large meal, rich in carbohydrates, may be substituted for the glucose. In two cases of suspected abortion, the test has been positive and the histologic examination of curettings has discovered syncytial and decidual cells. The assumption that in pregnancy the permeability of the kidney cells, per se, is increased, the authors believe to be unwarranted. It is, however, on such a basis that the rationale of the phlorizin test is based. It seems to them more reasonable to postulate, in pregnancy, an imbalance in the internal secretory mechanism in this newly acquired physiologic state, and again

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in the later stages, preceding lactation. Such disturbances of internal secretion might well be looked for in the ovary, liver, thyroid and pancreas. It seems more reasonable to suppose that the mobilization of carbohydrates in liver and muscles is disturbed, and that the addition of an insult of 100 gm. of glucose rapidly brings the blood sugar content to the point of intolerance. The conservative mechanism then permits an overflow of sugar into the urine and frequently a disgoring of the remainder of the excess in the stomach.

—R—

Insulin as an Investment for the Patient With Diabetes Mellitus

Reginald Fitz and William P. Murphy, Boston (*Journal A. M. A.*, Feb. 9, 1924), point out that a broad-minded physician conserves the money as well as the health of his patients; in a sense, he is a trustee both of their bodily welfare and of their finances. In other words, a physician is not justified in prevailing on sick people to go to a great expense for diagnostic tests or therapeutic procedures which are unnecessary or of theoretical interest; rather must he advise those measures which are as safe and certain as possible and which offer the prospect, through relieved symptoms, of a good return for the financial investment involved. This point of view is particularly sound when applied to the insulin situation. The authors have followed a small group of typical cases in an endeavor to measure what insulin has accomplished for them in terms of dollars and cents. The result of this work is reported in this paper. The material selected for this study consists of five cases chosen to represent the various types of severe diabetes most commonly seen in general practice. These cases are illustrative of the economic results in the treatment of diabetes with insulin which are being obtained in many cases throughout the country, and tend to show that, on the whole, the money spent by patients in buying insulin and in learning how to use it has been well invested and has purchased a satisfactory gain in strength and efficiency.

—R—

Hydrochloric Acid Therapy in Rickets

Those infants having relatively little hydrochloric acid in the gastric secretion may develop normally when breast fed, but says Martha R. Jones, San Francisco (*Journal A. M. A.*, Feb. 9, 1924), if the diet is changed to foods having a higher potential alkalinity, the amount of acid present may be insufficient for normal mineral metabolism. Individual differences in hydrochloric acid secretion may also explain why one of a pair of breast fed twins is rachitic and the other not.

It is conceivable that the beneficial effects derived from cod liver oil, sunlight and improved hygiene may be due to the stimulation of general metabolic processes, and indirectly the readjustment of the acid-base balance in the body. For the latter theory there is some foundation in an athreptic infant, aged 3 months, in whom the gastric contents after a test meal of oatmeal gruel showed complete anacidity. Hydrochloric acid was added to the milk formula, and not only was there prompt and striking improvement in the general well-being of the infant, but the gastric tests made during the acid therapy showed a curve well within normal limits. When the infant's condition warranted a discontinuation of the hydrochloric acid, gastric tests still showed the presence of considerable acid, although the curve was not so good as that during the acid therapy. Apparently, in this case, the increase in hydrochloric acid secretion was the result of general improvement which was initiated by the addition of acid to the diet. Furthermore, the fact that inanition greatly retards the rachitic process can also be explained in the foregoing hypothesis, since the products of catabolism of body tissue are acid in reaction, and may help to restore a normal acid-base balance. Having succeeded in producing rickets in apparently normal puppies on a well constituted diet with the addition of an alkaline salt mixture and to cure this condition with no changes in environment or diet other than the addition of hydrochloric acid, Jones decided to try out this therapy on rachitic infants. The result was very satisfactory. The cases are reported.

—R—

Arteriosclerosis in Thyroid Deficiency

Arthur M. Fishberg, New York (*Journal A. M. A.*, Feb. 9, 1924), asserts that various anatomic, experimental and clinical findings point to loss of the thyroid secretion having among its consequences injury to the vascular system. This connection seems to be definitely demonstrated in the case reported by him. The patient presented two seemingly discrete symptom complexes, an anatomic equivalent for each being found at the necropsy: 1. A hypertensive syndrome with a diastolic blood pressure of 135, cardiac hypertrophy and cerebral hemorrhage; corresponding to this there was found at the necropsy generalized arteriosclerosis and beginning primary contraction of the kidneys. 2. Sudden onset of adiposity of a peculiar distribution with retardation of skeletal and more particularly genital development, as well as abnormal distribution of

hair. These phenomena point unequivocally to an endocrine disturbance, and at necropsy there was found a very extensive atrophy of the thyroid gland, with no other evident anomalies of the endocrine organs. In this case not only were the larger vessels atheromatous, as in the ordinary senile arteriosclerosis, but also the arterioles in the various organs were thickened.

—R—

FORGIVE US?

The Topsy of an "Uncle Tom's Cabin" died recently in L. A. and bequeathed her body to the doctors. Au! Topsy. (?)

—R—

VICARIOUS SUFFERING

The remark was made to a young attorney, John M. Fulton of Pasadena.

"You don't look well lately."

"No. I can't sleep at night on account of lung trouble."

"Nonsense, your lungs are all right."

"Yes, mine are. The trouble is with the baby."

HEADED HIM OFF

A certain doctor in Topeka was boasting of losing but very few patients. A disgusted listener remarked, "Hardly any physician does. He puts them where he can find them at any time."

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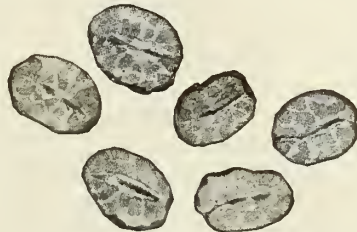
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The Treatment and Management of Tetanus

L. W. SHANNON, M. D.
Hiawatha

Read at Annual Meeting of the Kansas Medical Society,
Kansas City, May 2, 1923.

It might seem that with the well-established use of antitetanic serum in the treatment of tetanus that a thesis with no new factors for the relief of this dreaded disease would be an imposition. However, with an experience of thirty-seven cases covering a period of twenty-four years—seventeen of which were seen during an internship—all of which except one went the chloroform route, there would at least seem to be grounds for improvement in the management and technique with such factors as we now possess, even though no new remedy was to be offered. Therefore, when I was called on July 1st, 1919, to see a case that had the well-developed lockjaw and general muscular rigidity even to opisthotonos, resulting from a nail wound in the foot eight days before, I realized that nothing short of heroic efforts would be worthy of consideration. As I had an intimation before leaving the office of what I might encounter, I armed myself with all the antitoxin available, ten thousand units, and at once administered the full amount intravenously and would have given three times the amount if I had had it.

Before we enter into a discussion of the case in hand, let us review a few of the well-established facts concerning tetanus. First, from the point of entry, how does the toxin find its way to the nerve centers? Second, when does the antitoxin neutralize the toxin and with what rapidity does it reach this point after being administered? Third, what portion of the antitoxin administered reaches the part of the body where the toxins do their deadly work? Fourth, is it possible to anticipate the amount of toxin produced in the wound? Fifth, how to best control spasms and hypersensitiveness.

The greatest portion of the toxins produced are found in the blood and find their way to the central nervous system by way of the motor-nerve tracts, either by way of the axis cylinders or the lymphatics of the

nerves. At the present time it has been shown and the theory prevails, that there might be circulating in the blood of a person infected with tetanus many times the fatal dose, if not many thousand times the fatal dose, with no fatal issue until the fatal dose or amount of toxin has reached the nerves and ganglia of the central nervous system. Ransom, (Page 499, Hare,) has demonstrated by intravenous injection of antitoxin it is possible to neutralize the toxin in the blood in a very few minutes, almost as rapidly as in a test tube experiment. Therefore, the real conflict lies in neutralizing the toxin after it has left the blood through the capillaries, while it is in migration through the fine interstices of the connective tissue through which it must penetrate before reaching the nerves. And that there is an interval between the time that the blood becomes supersaturated with toxin and the time that the fatal issue may occur has been demonstrated by injecting thirty thousand fatal doses into an animal which survived twelve hours; ten fatal doses and the period was twenty-four to thirty-six hours and when only two fatal doses were administered, the time was two or three days. And that the first warning we may have of there being a case of tetanus, such as reflex excitability and muscular rigidity may and does occur long before the fatal dose has passed beyond the reach of antitoxin, has been demonstrated by such cases recovering. Therefore, the interval between the time we have our first suggestion of tetanus and the time necessary to absorb a fatal dose is our opportunity for heroic work. Now it has been shown that antitoxin administered subcutaneously is absorbed very slowly—twelve to twenty-four hours before the maximum amount finds its way into the circulation. Therefore, the subcutaneous method is mentioned only to condemn it as only not practical but a method in which delays are dangerous in active treatment. As a preventive and in later stages of the disease, the subcutaneous method may be used. The intradural administration of the serum has the advantage of the intravenous route only to

the extent of neutralizing the toxins free in the cerebro-spinal fluid quickly, but since the toxin exerts its deadly influence upon the centers of the central nervous system, the simple neutralizing of the toxin in the cerebro-spinal fluid would not give us the desired effect, until the antitoxin could be absorbed and since absorption from the cerebro-spinal fluid is slow as compared to other routes, a reliance upon the intraspinal method alone is condemned. When injected intravenously a portion of the antitoxin passes very rapidly into the lymph, having been found in the thoracic duct of a dog two minutes after being administered. But that it reaches the cerebro-spinal fluid slowly is proven by the fact that the fluid never contains more than 2 per cent of the amount of antitoxin in the blood. Therefore, with this comparatively fixed result existing between the amount in the blood and that found in the cerebro-spinal fluid, we are surely justified in concluding that the amount of toxin in the tissues between the capillaries and the lymph and axis cylinders of the nerves is in the same graduated and fixed proportion, or, in other words, the more antitoxin units that are in the blood, the more will find their way into the tissues and is in direct proportion to the amount given. Bearing in mind all these facts, it is quite evident that a successful issue depends upon supersaturating the blood by intravenous injections of the large doses of antitoxin until there is signs of improvement. An intraneural injection of the antitoxin would place the remedy in more direct contact with the nerves, but I doubt if as potent as by the circulation, from the fact that absorption from the spinal fluid would be very slow and practically nil; and there would not be the advantage of neutralizing the toxin in the tissues on the way to the nerve cells.

Hare and Field performed a series of experiments on forty guinea pigs to test out the importance of small and large doses given either by intravenous or intraneural methods and the experiments showed that moderate doses of antitoxin given after the development of tetanus do not save the animals from death or even prolong life, while very large doses would do both and they also state that if very large doses are given intravenously that the intraneural injections are not necessary.

In the experimental work with tetanus and tetanus antitoxin where it is possible to first determine the fatal dose of toxin to a certain animal and also determine ex-

perimentally the amount of antitoxin necessary to counteract it, the experiments of Hare and Field are of great value in demonstrating to us that it is absolutely necessary to introduce into the system a sufficient amount of the antitoxin to neutralize the toxins being developed in the body, and since it is impossible for us to have any idea of the amount of toxin being produced in a case in hand, it remains for us to be guided by our better judgment and close observation of the case and, if we should err at all, let us err upon the side of giving an excessive rather than an insufficient amount.

Therefore, when this case came under my observation, I began to administer the antitoxin intravenously, giving all I had, ten thousand units, the first visit and at the rate of thirty thousand units every twenty-four hours at eight-hour periods for the next four days, and then five thousand units a day for the next four days, giving in all 146,000 units.

The accessory management and treatment, although not of a specific nature, I consider of much importance with a well-developed case of tetanus on hand; a person has many angles of defense to watch, and the convulsions to be controlled with as little detriment to the patient as possible. Morphine, chloroform and bromides and chloral have long been the sheet anchors for this purpose. I think they should be used for quick relief if necessary, but not abused. In my observations on this case, I found that rigidity of the muscles and even convulsions could be lessened and controlled by keeping the patient under the control of a saturated solution of magnesium-sulphate administered hypodermically. I began with 1 cc. doses every two hours and gradually increased until I gave 16 cc. every two hours with $\frac{1}{8}$ gr. morphine added to every other dose, all the time watching for signs of depression. I discontinued the use of morphine with any regularity after four days, but continued the use of saline solution, gradually decreasing the frequency. I found upon repeated efforts to discontinue it entirely that the hypersensitiveness would increase and just as soon as a dose or two was administered, the patient was quiet. The administration of bromide and chloral after the first six or eight days would quiet the patient while under the influence and asleep, but as soon as awake there was the same hypersensitiveness. I then gave the saline alone and found the patient would be quiet although

not asleep, and resting well as long as saturated with the magnesium-sulphate solution. Therefore, it was continued up to the third week, giving only as required, the last few days only three or four doses in twenty-four hours. In the first ten days, or in the active stage of the disease, I found that a combination of saline in the daytime and bromide and chloral at night gave very happy results, as nocturnal rest was afforded, and in the daytime the patient was awake to co-operate in her care and management.

Therefore, I might sum up my observations as follows: Since toxin is neutralized by the antitoxin to the best advantage before it reaches the nerve cells and ganglia, and since we can administer antitoxin in a way that it will be absorbed and disseminated much more rapidly than toxin that is being or has been absorbed from the wound, it is very important that we take advantage of the first suggestion of tetanus and begin the administration of very large doses intravenously of antitoxin sufficient to supersaturate the blood and tissues, in order to overcome the toxin, as it were, on the way to the central system. In the control of the rigidity and hypersensitiveness, I would push the use of magnesium-sulphate solution, reinforced in the early stages with morphine in small doses administered principally in the wakeful periods, and use bromide and chloral at night. I gave two doses of saline each night and continued the use of saline as long as and as often as required to control the rigidity and hypersensitive condition of the patient, extending far into the convalescing period, even to the end of the third week.

The nutrition and support of the patient is not only an essential factor but requires a special attention, especially in cases difficult to feed by mouth. In all such extreme cases the nutrition should be maintained by nutrient enemata, however it has been my observation that cases in which the hypersensitiveness and spasms are kept under control by the saturated solution of magnesium sulphate take their food with much less difficulty and with far better co-operation upon the part of the patient than when controlled by nerve sedatives and narcotics.

—R—

Bilateral Sacro-Iliac Obliteration.

During the study of a number of sacro-iliac cases it was found by S. C. Woldenberg, Chicago (Journal A. M. A., March

29, 1924), that a certain percentage showed a complete ankylosis or synarthrosis of the sacro-iliac joints. The clinical symptoms as recorded are a dull, aching pain, inability to lie down without great discomfort, rigidity of the muscles of the back, spasms of the muscles of the back, and atrophy of the gluteal fold, with obliteration of the normal lumbar curve and marked limitation of forward bending. The roentgen-ray findings are distinct erosion or alteration of the articular surfaces, and decreased joint space (sometimes reaching the stage of total obliteration with resulting ankylosis). These clinical symptoms and roentgenologic findings give evidence of a low-grade inflammatory process for which no causation can be proved.

—R—

Some Observations Regarding the Syndrome of Appendicitis.

P. W. BECKMAN, M. D., Lindsborg, Kan.

Read before joint meeting—McPherson and Harvey County Medical Societies.

An attempt at explanation of the basis of symptoms of appendicitis based on the nerve reflexes and motor mechanism of the gastro-intestinal tract.

Nerve Supply—The gastro-intestinal tract is innervated by the autonomic nervous system which is composed of the vagus and the sympathetic. The vagus supplies the tonic and motor impulses, and the sympathetic supplies the inhibitor or relaxor impulses. Between the muscular walls of the stomach and intestine are a number of plexuses—viz: the plexuses of Auerbach and Meissner, which relay the peristaltic waves. These are closely correlated with the vagus and sympathetic.

The vagus and sympathetic are antagonistic, and are autonomic, or self-governing. In over-activity of the vagus, or vagotonia, we have spastic conditions and hyper-acidity; in sympatheticotonia we have the opposite, viz atony and low acidity.

It takes food from six to nine hours to traverse the small intestine, and the residue remains about twenty hours in the large intestine.

The mechanism of the peristaltic waves consists of contractions, preceded by areas of relaxation of the intestines, relayed through the successive plexuses of Auerbach and Meissner.

The nerve supply of the appendix is from the superior mesenteric ganglia which receives communicating branches from the

11th and 12th dorsal spinal nerves; therefore, pain sensation from the appendix should be referred to McBurney's point, corresponding to the innervation of the 11th and 12th dorsal in accordance with Hed's law.

The parietal wall and parietal peritoneum are very sensitive to injury. The viscera are not sensitive to cutting or clamping, it is only when the mesentery is pulled upon that acute pain results, which is referred to the overlying structures, this is due to stretching of the nerves in the mesentery. Pain in colic is due to areas of contraction and relaxation of the intestine, causing a pull on the arborization of the nerves in the mesentery. The pain of gastric ulcer is due to gastro-spasm which operates in the same manner.

The pathology of appendicitis consists of an obstruction of the lumen of the appendix, due either to swelling or a foreign body, or an interference with the circulation due to inflammatory exudate, following which we have the successive stages of inflammation to which are added infection, etc. When this condition is present we have first, inhibition to the passage of intestinal contents through the lower ilium (spastic contraction) then nature's effort to overcome this arrest which causes hyperperistaltic waves, or colic, with pain in the midabdominal region. Second: Nausea and vomiting as a result of reverse peristalsis. This continues for a varying period, usually about twenty-four hours, when the colicky pains cease, and the condition is either improved and the inflammatory reaction in the appendix has subsided, or the condition has progressed to the point where there is sufficient peritonitis to cause paretic relaxation of the intestinal walls due to the paralyzing effect of the toxin on the constrictor nerve supply. The condition is now one of local tenderness and rigidity in the right iliac region, or beginning peritonitis. At this stage we have a muscular relaxation of the intestinal walls, with localized vaso-motor paresis. This constitutes the first stage of peritonitis. The same condition applies to a perforated appendix; however, the relief of pain may in a measure be due to relief of tension. The pathology is still localized, and the appendix may usually be safely removed at this time. However, if the condition has progressed to the third, fourth, or fifth day with increased paretic distention and constitutional symptoms of toxæmia, we have at this time a period of

negative immunity when battle is being waged between the bacteria and toxins on the one hand, and the defensive forces on the other. The case is now no longer one of appendicitis, but one of generalized peritonitis with Paralytic Ileus.

Let us now visualize our pathology; we have complete paretic relaxation of the intestinal walls with vaso-motor dilatation and infiltration. Added to this we have a highly toxic content of the upper intestinal tract; in other words we have a paralytic ileus and the case should be so treated. This is the stage where surgical judgment is frequently at fault. If you are in doubt, pass a stomach tube. If you recover a large amount of brown fluid you may be sure that the case has progressed to the point where paresis involves the upper intestinal tract with the stomach as well. The treatment is then gastric lavage, proctoclysis, morphin to combat shock, or ileostomy under local anesthesia. In other words, the case should be treated as an ileus instead of an appendicitis, and upper intestinal drainage is of paramount importance.

Chronic Appendicitis—Pain in the right iliac region does not mean very much as far as a diagnosis of chronic appendicitis is concerned. The term "chronic appendicitis" should be used guardedly. We should consider pain in this region in correlation with the balance of the intestinal tract, and vice versa. Blackford, in an analysis of 1,000 cases that presented themselves for stomach trouble, gives the following results: 141 gastric; 345 abdominal reflex—principally gall bladder or appendix; 181 systemic, viz: renal, cardiac, tubercular, pernicious anemia, etc.; 251 functional, or neurotic.

Symptoms of pylorospasm or nausea after taking food, associated with tenderness in the right iliac region, may be significant. Pain may be purely functional, or may be due to stasis in pouched caecum, constriction by bands, or tight mesentery of ascending colon. ✓

Conclusion—Pain during the early stage of appendicitis is due to hyper-peristaltic waves, excited by inhibition in the lower ilium. The subsidence of peristaltic waves is due to the paralyzing effect of the toxin of the motor sensory nerves of the intestines. Later stages of appendicitis should be treated as a paralytic ileus.

In chronic appendicitis we should consider pain in the right iliac region in correlation with the balance of the gastro-intestinal tract or vice versa.

BELL MEMORIAL HOSPITAL CLINIC**Clinic of Dr. A. L. Skoog.**

Neurological Department

A CASE OF TRANSVERSE MENINGO-MYELITIS

We have to present today an interesting though grave case, and one presenting some complex problems in neuropathology and therapy. After you have heard the demonstration of the clinical manifestations, the therapeutic difficulties may be fully realized. A simple, easy, clean cut neurological entity is more readily presented in a clinic, but types such as this case must be appreciated by medical men since they present themselves in practice from time to time.

Patient is housewife, age 45. Admitted to Bell Memorial Hospital November 30th, 1923, with the complaint of inability to use lower limbs.

Present Illness: Patient was perfectly well until November, 1922, when she became ill "with boneache," fever and chills each afternoon for two weeks. In three weeks was able to be up, but had some weakness and numbness of legs. This grew worse, so that after two weeks was unable to walk. Otherwise health was good. By March 1923 legs would draw up involuntarily and then slowly relax. About this time there developed aching in legs, back and groin. Pains were worse at night and when in sitting position. She had urinary incontinence for two weeks during the spring.

In May patient had sixteen teeth removed; and in June an operation for "pelvic infection". This operation consisted of hysterectomy and appendectomy. She has been completely bedridden since. For past two months drawing in legs is more pronounced. Constipation is present. Eyes seem to be "getting weak".

Past History: Patient has had measles, mumps, pertussis, typhoid and diphtheria. Menses was established at 17; regular; not painful. Five children living and well. She had one miscarriage at two months.

Family History: Father living. Mother dead of stomach trouble. Three brothers and three sisters living and well. Tuberculosis reported on father's side.

Physical Examination: We see before us a small, thin woman, apparently about 45 years old, lying in bed with thighs and knees flexed. She has good function in the upper extremities, chest muscles, neck and head. The mental state is quite good.

Nasal septum is deflected; tonsils are

small and buried. Anterior and posterior cervical adenopathy is present. Chest is somewhat emphysematous. Mid-line abdominal scar obliterating umbilicus is seen. She complains of tenderness over sacrum and sacroiliac synchondrosis. Cervix is lacerated. Otherwise the routine physical is negative.

Neurological Examination: Lower extremities show marked flexion of right thigh and leg, with some atrophy and fixation. Left leg may be voluntarily extended and flexed, but quite feebly. Some atrophy of anterior tibial and sural group of muscles is plainly evident. Spasticity in muscles is quite marked, greater on right. Reflexes of defense are decidedly positive. There is a remarkable bilateral Babinski, with areas for stimulation as high as abdomen on the right side. Ankle clonus is present on right and left. A patellar clonus would be demonstrable except for the extremely rigid state. Note the spasticity and diastasis of the recti abdominales. Epicritic sense at ninth thoracic segment mildly obtunded; eighth very slightly; seventh normal. Over all the skin below a circular line about 3 cm. above the umbilicus we find a moderate impairment of epicritic, protopathic and deep sensation.

Laboratory Findings: Spinal puncture on December 3rd, gave a pressure of 240 mm. (water gauge). After a withdrawal of 15 cc. of clear fluid, pressure dropped to 70 mm.; cell count 3; Pandy negative; Wassermann negative. Blood: Reds 4,344,000; Hb. 85 per cent; Whites 8,200 with normal differential. Blood Urea 10.0; Creatinine 1.4; Chlorids 420.0; Sugar 145.0; (all figures mmg. per 100 cc.).

An x-ray of the back showed a deviation of sacrum to right and apparent downward tilting of fourth lumbar vertebra. Also a shadow on the right side, neighborhood of eighth to tenth thoracic, is seen, such as found in an old calcified tubercular abscess.

A combined diagnostic cisterna magna and third lumbar puncture was performed on December 27th, 1923. Patient was in right lateral posture with the two puncture points precisely on the same level, and head moderately flexed. Local anesthesia for each point was used. At the midline, posterior rim of the foramen magnum, the puncture needle penetrated the dura at 5 cm. The cerebral fluid pressure measured from 40 to 80 mm. The needle was left in situ and practically no fluid was lost. Then a third lumbar puncture was per-

formed and the spinal fluid pressure found at 50 to 80 mm. Good respiratory and cardiac oscillations were observed at both puncture points. Eight cc. of spinal fluid were removed. No pleocytosis was found and a negative Wassermann reported. Then pressure measured 10 mm. at the lumbar, and at the cisterna puncture the same. All fluids were clear. Patient left the table feeling as comfortable as during the past few days.

I would contend from studies of fluids in the cisterna magna and the lumbo-sacral cistern that the patient is not suffering from any gross obstruction between the two puncture points.

Diagnosis: In our diagnostic considerations we have indicated clearly some kind of a lesion involving or pressing upon the spinal cord. The upper level of this lesion is fairly well defined. The lower level is not quite so certain. The fact that the sphincters were involved only for a short period of two weeks during the early stage of the illness, but now function fairly well, indicates that at least certain portions of the sacral cord are intact or almost so. The sensory findings indicate that the upper level of pathological involvement of the spinal cord might be placed at the eighth dorsal segment. At times during the examination there was suggested slight possibilities of an involvement of the seventh. The nature of the lesion was considered to be some kind of an infection. We have definite evidence in the history of some kind of an infectious process during the first month. Thus a transverse myelitis extending upward to and involving the eighth dorsal cord segment, and a little more severe on the right side, was diagnosed. Some involvement of the lepto-meninges with the possibility of an arachnoidean cyst was considered.

Prognosis: The seriousness of the malady was fully appreciated by all who have studied this case. This has been made clear to the relatives. The slow but continuous progress of the disease was given due consideration. We have seen this course despite the past treatment. Therefore, it was decided to perform an exploratory laminectomy. The surgical staff was called in consultation and operation arranged for.

Operation: On January 11th, 1924, Dr. Sudler performed the laminectomy, removing the fifth, sixth and eighth dorsal spinous processes. The corresponding laminae were resected. The spinal canal seemed ex-

cessively filled. After the extra-dural fat had been removed I carefully made a long longitudinal section through the dorsal portion of the dura. This revealed a thin, almost translucent membrane with underlying fluid under some considerable tension. There was no pulsation. The arachnoidean membrane presented some whitish or sclerotic patches, was thickened and tough, suggesting some old inflammatory process. It is quite evidently an old chronic arachnoiditis. This was opened and with premeditation torn at several points. A considerable amount of sub-arachnoidean fluid, seemingly confined, escaped. Then the cord was examined and found to be smaller than the normal. It was unusually dense throughout the three of four segments palpated. The living pathology here viewed indicates an old myelitis with a lepto-meningitis of a chronic nature, with possibly a circumscribed cyst over the posterior surface of the cord. The dura was carefully sutured, and the wound closed.

The repair following the operation has been uneventful. She has continued to have good control of the sphincters. However, some dull pain persists in the lower extremities. The spastic contractures in the lower extremities are somewhat painful. The left leg can be straightened, but the right not on account of the severe pain produced when this is attempted. The deep reflexes continue to be increased to about the same degree. There is exhibited a marked Babinski and Oppenheim, but decidedly more on the left side. It is interesting to note that a positive Babinski can be obtained for the left toes by stroking the right. Thus the phenomenon is produced on both sides by stroking the right sole. On the left a positive Babinski can be obtained by stimulating any portion of the leg and upward as high as the eighth dorsal segmental area. The reflexes of defense are strikingly pronounced. The trophic and sensory state remains unchanged.

Discussion: Now in reviewing this case ten days following the operation we feel that the patient has not been made any worse. However, we can not state that there has been any definite improvement. In the literature we can find some cases of transverse myelitis in which operations have been performed with satisfactory or gratifying results. In the patient under consideration I hardly expect any brilliant results in view of the living pathology which we observed at the time of the operation. Nevertheless we must

wait some months before arriving at definite conclusions as to what might have been accomplished by the laminectomy. We should select our cases for laminectomy whether they be traumatic or inflammatory with extreme caution. Today a carefully performed laminectomy per se should offer no higher mortality rate than a simple opening into the abdominal cavity. The pathological findings largely should determine the seriousness or mortality rate.

I wish now to say a few words relative to some points in the localization of spinal cord lesions. On account of the almost perfect metamerism there are no more interesting tissues throughout the body than the spinal cord for possibilities in exact localization. Even so at times we continue to encounter difficulties. In making a careful sensory chart and outlining a level separating the normal from the abnormal, it is of some importance to have a good neurological witness. Some patients are much better than others for this kind of work. Then, too, it may be necessary to make repeated examinations, and at the proper time of the day. Careful study of the epicritic, protopathic and deep sensations is of prime importance. Many of the reflexes including superficial, deep tendon, and reflexes of defense are of much importance, but in my opinion not of the same value compared with sensory findings. Babinski lays much stress upon the importance of the reflex studies for spinal cord localization. A study of the muscular palsies, atrophies and trophic states do not carry as much weight in determining the position of the lesion. Spinal cord localizations will include besides the level involved, the layers. Thus the lesion may be extradural, extra-medullary or intra-medullary. To determine which layer is involved is not always an easy matter. As a rule the extra-medullary presents more pain or distress. Symptoms from radicular irritation should be investigated. An analysis of all the clinical data chronologically considered has been used advantageously.

The nature of the lesion is another problem presented in a diagnosis. Thus we have to consider true neoplasms, granulomas, various cysts, and inflammatory states including acute and chronic. Trauma too should not be neglected. In the case presented there was a definite history of some infectious process, originally due possibly to some pyogenic organism dating back about eight months ago.

Before leaving this subject I wish briefly

to call your attention to a type of lesion involving the lepto-meninges, though not commonly encountered, which should be considered in the differential diagnosis. The entity to which I refer has been described by various authorities as a localized arachnoiditis, cystic meningitis, arachnoid cyst, arachnoiditis hemorrhagica and meningitis circumscripta chronica. In many cases the lesions can only be suspected. Apparently it is extremely difficult to differentiate these from the true neoplasms. I believe they can occur primarily and alone, or co-incident with some more diffused meningitides or myelitis.

Clinic of H. R. Wahl, M.D.

PERFORATING MALIGNANT ULCER OF THE SIGMOID COLON

This patient, a man about sixty years of age, a bricklayer by trade, entered the hospital, complaining of severe abdominal cramps and pain. There was loss of appetite, indigestion, sleeplessness and a sense of heaviness and weight in lower abdomen for four weeks before. The stools were frequent and often contained considerable flatus. There has been no loss of weight. There has been no history of an acute abdominal condition. During the past four months there was some polyuria. The present illness began suddenly, four days ago while at work, with severe sharp cramping pains in the abdomen. On arriving at his home the patient sought relief by taking a saline purgative but this only made it worse. The pain was often associated with a desire to defecate and occasionally radiated to the end of the penis. There has been some burning on micturition.

As soon as he entered the hospital it was at once evident that he was in great distress. He showed marked general abdominal tenderness which seemed to be more pronounced in the lower right quadrant. The abdominal muscles were rigid. The urine examination showed a few epithelial and granular casts and a moderate amount of albumin. The blood showed a red count of 4,190,000. White count 10,000, and a hemoglobin of 95 per cent. The temperature was 101.5 degrees. Chemical examination of the blood showed a marked reduction in blood chlorides. A clinical diagnosis of intestinal perforation was made and an exploratory laparotomy performed. The peritoneal cavity showed a foul smelling purulent

exudate all over the right side. The duodenum and gall bladder were carefully explored for a possible perforation but none was found. The inflammatory reaction seemed to be most marked around the appendiceal region though the appendix could not be easily seen. Two drainage tubes were placed in the appendiceal and in the liver regions and the wound closed. The patient failed to improve after the operation. The temperature gradually became higher; respiration more rapid; pulse weak and fast with death occurring on the fourth day after the operation.

While a clinical diagnosis of intestinal perforation was made no definite perforation was found. Apparently, there was a partial attempt to wall off the infection to the right side of the abdomen and no attempt was made to break down the freshly formed adhesions. It was thought that the perforation probably began in the neighborhood of the appendix, because there the exudate seemed to be older and more abundant than elsewhere and the adhesions firmer.

At autopsy we noted the body of a fairly well nourished man 60 years of age, showing a rather large right rectus incision with a drainage tube protruding. From the side of this tube a small amount of pus could be readily expressed. On opening the peritoneal cavity the serous surfaces had a dull ground glass appearance and showed flecks of fibrin. There were pockets of pus near the bottom and folds of the mesentery. This purulent exudate and fibrin was very easily pulled off the surface, except in the neighborhood of the appendix, where there was a considerable amount of pus which was fairly well walled off by the adjacent cecum and coils of the small intestines. This abscess cavity, however, extended down into the pelvis where a large quantity of pus was present. After washing out the pus we found that the viscera in this region were covered with a fairly thick, red, fibrino-purulent exudate which is adherent and apparently had undergone some organization. It seemed to be much older than that which is present higher up in the abdominal cavity. The picture suggested that the primary infection began in the neighborhood of the pelvis, possibly around the appendix and extended higher up, resulting in a more recent peritonitis in the upper abdomen. Closer inspection of the appendix showed it to be very small, only 5 cm. in length and 2 to 3 mm. in diameter and to be entirely

obliterated. It was covered by a fibrinous exudate. There was nothing in the interior of the appendix. This, accordingly, would exclude the appendix as being the source of the infection. Further inspection of the duodenum, gall bladder and of the intestines, generally, failed to disclose any definite perforation. With this failure to find a definite perforation or source for the peritonitis the entire gastro-intestinal tract was removed in one mass and filled with fluid and suspended in order to see if, by some leakage, an opening in the intestinal tract could be found. However, no definite perforation or opening could be found in this way. On suspending the intestine, however, the fluid did not pass the colon, evidently there was obstruction in the lower portion of the sigmoid colon, which prevented the fluid from readily passing through. On opening the intestinal tract nothing was noted besides the general distention of the stomach and duodenum, until we reached the sigmoid colon. Here we found that the obstruction was due to the presence of an annular, ulcerated, everted tumor mass resembling the annular type of carcinoma which is so frequently found in this region of the intestines. On palpation of this ulcer it was found to be very soft and flabby and did not present the usual indurated feel that was present in most malignant diseases of the gut. Towards the base of this ulcer we found that the wall was very thin and had a rather bluish discoloration that extended out through the muscularis on the serous surface. In this region there were some adhesions which bound some of the fatty tissue over this discolored area. On breaking down these adhesions very carefully we found a small valve-like perforation about 2 mm. in diameter. This perforation was partly closed through the pressure of the fluid from above because of its valve-like character. It was surrounded by a considerable amount of organizing fibrino-purulent exudate hidden from external view by some of the appendiceal epiploicae that were matted down over the opening.

The other findings at the autopsy were not of particular significance and can be limited to a few words. The heart was slightly dilated. The spleen was swollen and showed an unusual thickening and opacity on the outer surface. It was very soft throughout its substance. The pulp scraped off very readily indicating an acute splenic tumor. There was some fresh fibrin over the surface of the liver. The

kidneys were rather large, soft and flabby suggesting an acute nephritis superimposed upon a chronic nephritis.

The findings in the microscopic examination simply confirmed the findings at the autopsy. The finding of main interest was the fact that the exudate on the surface of large intestine, especially around the sigmoid and in the neighborhood of the pelvis, showed beginning organization whereas the exudate over the intestine higher up and in the right upper quadrant showed no evidence of proliferation and was composed mostly of fibrin and a few leukocytes. A section of the spleen showed a typical acute splenitis such as one would expect. There was a fatty change in the liver. The kidney was rather striking in that the glomeruli showed all grades of disintegration and degeneration, with a considerable evidence of a chronic process being present. Evidently, we had both an acute and chronic nephritis.

An important histological finding, however, was present in the wall of the ulcer and in the neighborhood of the perforation. Two blocks that were removed from this area showed no evidence of a malignant change. They showed what appeared to be a chronic ulcer in which there was considerable hyperplasia of the epithelium and at one point a benign papilloma. A third block was taken through another area that showed very distinct invasion of the muscularis by an irregular glandular like epithelial mass of tissue. There is no question but what the ulcer is in reality an adenocarcinoma showing a striking tendency to necrosis and ulceration.

There are several points in connection with the clinical history and the post mortem findings in this case that are worthy of comment.

If no autopsy had been performed this patient would have been put down as having died because of a peritonitis following a perforated appendix instead of a small carcinoma of the colon with perforation. This discrepancy between the autopsy findings and the clinical interpretation is very common and yet it is surprising how few physicians seek verification of their diagnosis by a post mortem examination.

Another point of interest is that we have a man here with a very severe abdominal condition who immediately took a rather severe cathartic in order to remove what he thought was gas and did not seek medical attention for several days. It is very hard to impress not only patients, but also

both students and nurses that every severe abdominal pain does not immediately indicate the use of cathartics for they may spread an infection and break up nature's attempt to rest the part where the perforation is and in that way ruin nature's attempt to wall off infection to a single part.

From the findings at the autopsy it is evident that at the time of the laparotomy the patient had evidently a recent breaking down of the fresh adhesions about the newly formed abscess of the pelvis and appendiceal region, this accounting for the fact that pus was found all along the right side of the peritoneal cavity and showed little fibrin or organization. This is confirmed by the fact that at autopsy there was considerable organization in the neighborhood of the pelvis and none present higher up in the abdominal region. This patient may be looked upon as one who died as a result of an accident in the course of a malignant growth, that is, a perforation followed by general peritonitis. This perforation was very small and valve-like and accounts for the partial isolation of the infection.

This case illustrates how essential it is in all cases of general peritonitis to make a very thorough search for a perforation, intestinal infarction or some other source for the infection. For some time no source was detected until a careful inspection of the wall of the ulcer revealed a small opening, valve-like in character, and covered with fresh adhesions. Occasionally, a general peritonitis may occur with no apparent primary source but this cryptogenic type is so rare that a thorough autopsy is necessary to establish its presence.

The fact that the patient had a well developed kidney lesion may have contributed to his failure to localize the peritoneal infection better. His history of polyuria is supported by the pathological finding of a well developed chronic nephritis. A routine physical examination annually would have detected this disturbance and might have prolonged the patient's life. The acute changes in the kidney were undoubtedly due to the absorption of toxins from the peritoneal infection.

The history of a mild chronic diarrhoea with much mucus in the stools usually indicates some irritation of the mucosa of the lower colon and should have led to a clinical suspicion of trouble in the lower bowel rather than around the gall bladder or appendix. The sensation of weight and heaviness in the lower abdomen also would sup-

port a suspicion of partial obstruction near the rectum.

An unusual feature of the malignant growth was the discrepancy between its gross and its histological appearance. Histologically, there was a typical adenocarcinoma infiltrating the muscle tissue. Such infiltration is almost always associated with an ulcer with an indurated base and edge. While the edges appeared thickened and everted it was surprising that no induration of either the base or edge could be made out. This is, however, explained by the fact that several blocks did not show the malignant change and a large part of the ulcer was inflammatory in type. It is thus evident that we have here a primary chronic ulcer followed by inflammatory hyperplasia and a malignant change.

Carcinoma of the large intestine is more frequent than in the small intestine. It often occurs earlier in life than when arising in other tissues. It seems to increase in frequency towards the rectum. Of 123 intestinal carcinomata described by Kaufmann 36 were in the colon, 28 in the sigmoid colon, and 61 in the rectum. In another series of 297 colon carcinomas, 47 were in the cecum, 22 in the ascending colon, 19 at the hepatic flexure, 10 in the descending colon and 124 in the sigmoid. They rarely follow ulcerated conditions of the colon. An association with a polypoid condition is more common.

As a rule these tumors are only moderately malignant. They do not grow rapidly. Extension beyond the intestinal wall and metastases develop slowly and late in the course of the disease. They tend to cause obstruction and often perforate as in this case leading to peritonitis and death. That there was not more obstruction is due to the fact that this was a relatively early tumor in which secondary infection and perforation brought about a peritonitis and death of the patient. Such an outcome is very common.

The prognosis is good as long as the tumor not progressed into the rectum and has not metastasized nor caused extensive secondary infection.

Out-Patient Clinic of Paul F. Stookey, M.D.

Assistant in Dermatology

THE ABORTIVE TREATMENT OF PRIMARY SYPHILIS

Since the time of Ricord, innumerable attempts to abort syphilis at the time of primary infection, have been recorded. Surgical excision and destruction of the

primary lesion with the actual cautery or caustics have all been practiced by different observers over a long period of time. Instances of an initial lesion of twelve hours duration being excised with a subsequent syphilis are recorded by Fournier¹ in his masterful discussion of the abortive treatment of syphilis. Ehlers² reports 584 cases of attempted abortive cure by extirpation. The end result was the same no matter what abortive procedure was attempted, secondary syphilis announced itself with the usual clinical manifestations.

Since the introduction of arsenicals in the treatment of syphilis the impression that primary syphilis can be aborted is current among a great many observers. The Viennese school insist that a genital ulcer, which on dark field examination shows the *treponemata pallida*, may be aborted by intensive treatment with neo-salvarsan. The Wassermann is done daily to establish the fact that systemic infection has not occurred and the arsenical is administered at first daily with gradual increase of interval time and the cure is generally completed by the use of mercury. The rapid elimination of neo-salvarsan is an indication for daily dosage in an attempt at sterilization at the time of the primary infection. The treatment is heroic and demands a robust individual and close supervision or it should not be attempted. Thom³ insists that one may cure syphilis with almost mathematical certainty if intensive treatment is instituted before systemic infection occurs. Oppenheim⁴ teaches that primary syphilis so diagnosed before the Wassermann becomes positive, may be aborted by intensive treatment with the arsenicals.

To me the term "secondary infection" has always conveyed a rather vague and indefinite meaning. When one considers that an initial lesion of a few hours duration may be excised, or when developing on the prepuce, circumcision be done and a typical secondary manifestation of syphilis subsequently develop, we must be impressed by the fact that widespread invasion of the neighboring structures has occurred long before any local manifestation of the primary lesion develops. From this ancient observation, which was the teaching of Ricord, one must assume that massive invasion of the inguinal glands must occur long before the characteristic adenopathy of syphilis develops. Given a so-called primary lesion with inguinal adenopathy, systemic infection must already be present.

Hoffman⁵ states that the treponemata pallida are present in the blood for approximately three weeks before the characteristic manifestations of secondary infection occur. Certain it is that constitutional syphilis must exist some time before the Wassermann becomes positive. A certain length of time is necessary for the individual to elaborate anti-bodies, or whatever the substance present in the blood serum of syphilitic individuals may be, that produces fixation of complement. In short, systemic infection must occur some time before the Wassermann becomes positive. If this assumption is correct, the Wassermann reaction is not an accurate indicator of the occurrence of systemic infection and this evidence should be considered in formulating an opinion as to the possibility of obtaining an abortive cure of early syphilis.

Recently Hazen⁶ called attention to the fact that if abortive cure is attempted and not accomplished, the resulting syphilis is of unusual severity and extremely difficult to control. I have had this fact emphatically emphasized in my own clinical experience. Dennie⁴ reports a similar experience and attributes the resistance to specific medication in cases where an attempted abortive cure has failed to an arsenic-fast strain of treponemata pallida, and this arsenic-fast strain of treponemata pallida may be transmitted with a resulting syphilis that is extremely difficult to control. One must assume that the initial dose of the administered arsenical was too small to be lethal to all the invaders, and those treponemata that resisted the arsenical, developed a tolerance to organic arsenic well beyond the limit of the margin of safe dosage to the infected individual. Such a teaching is not new in the history of neo-salvarsan and one recalls statements, in the literature of the past, calling attention to the fact that if the dosage was too small, the invader would become tolerant to the administered arsenical with a resulting resistant syphilis.

Of the defensive reaction of the body to syphilitic infection we know but little, other than that the relative immunity varies over a wide field and that the small lymphocytes and the plasma cell are the cellular elements that are the most active in the body defensive measures that constitute the pathology of syphilis. Can it be that the older clinicians, who after years of experience insisted that syphilis should not be treated until clinical evidence of secondary infection occurred, had experienced this same

semi-malignant syphilis so common, subsequent to the failure of an abortive cure? It would seem the reaction of the infected organism was the same to early massive doses of mercury, as has of late been observed by numerous clinicians using neo-salvarsan as the therapeutic agent. Did this dosage produce a strain of treponemata that were resistant to mercury or did the early administration of specific medication inhibit the body defenses and produce a negative phase, so to speak, by inhibiting the natural defenses? This I believe to be much more probable than any arsenic-fast characteristics on the part of the treponemata. However, the final decision on any discussion between an arsenic-fast organism and an inhibited immunity, must rest on negative grounds.

From a practical standpoint, the question of abortive cure is of great clinical importance. When is the physician, who has diagnosed primary syphilis with the dark field illuminator in an individual who shows a negative Wassermann on his blood serum, justified in telling his patient that abortive cure has been done and he is free from syphilis? Frequently one encounters individuals who present no clinical evidence of syphilis and negative serology, subsequent to an abortive cure. Again the percentage of cases is considerable who at the time of completion of abortive cure, show no clinical or serological evidence of syphilis, but relapse both clinically and serologically at an early date or even as late as two or three years subsequent to their cure. This annoying fact should always be considered before the infected individual is informed that his cure is complete. Again the clinician can no more predict what case will relapse than he can prognosticate the nature of a subsequent syphilis from the character of the secondary manifestations.

No one will deny that neo-salvarsan has a profound influence on early syphilis, twenty-four hours after the intravenous administration of an average dose, one cannot find treponemata in the initial lesion and the involution of the chancre is rapid and complete, but the fact remains that the invaders are not all destroyed and may at any subsequent time announce themselves by clinical and laboratory evidence of active syphilis. Treatment then, is indicated when the diagnosis of syphilis is established and should be intensive in the beginning and be continued over a period of at least two or three years with neo-salvarsan and mercury, even in the face of a symptom-free

patient with a negative serology. This is at best a long tedious process for our patients to undergo but one that offers the maximum chance of success and reduces the possibility of a relapse to a minimum.

1. Fournier—Treatment and Prophylaxis of Syphilis, Chap. 4, Page 40. American translation by George M. McKee.

2. Ehlers "Extirpation of the Initial Syphilitic Lesion," Copenhagen, 1891.

3. Thom, Peter Burton, Syphilis, Chap. XV, Page 182.

4. Personal Communication.

5. Corbus, B. C., Chapter V, Page 185, Vol. Cabot's Urology.

6. Hazen, H. H. "The Late Results in the Treatment of Syphilis." Journal A. M. A., June 23, 1923, Page 1,836.

R CHRISTS HOSPITAL CLINICS

Case Reported by C. F. Menninger, M.D.
Topeka

HANOT'S CIRRHOSIS—HYPERTROPHIC BILIARY
HEPATIC SCLEROSIS

This is a case of a white woman, age 57, married, house-wife.

Family History: Father is 84 years old, living and fairly well. Mother died at the age of 24 in childbirth. No brothers. Two sisters, one living and in good health; one died of typhoid fever at the age of 16.

Personal History: She had the usual children's diseases early in life; typhoid fever at 19. Menses began at 14, regular, duration three days, rather scant. Married first when 22 to a man who died four years after their marriage with acute pulmonary tuberculosis. Married present husband when 28 years old. Had two miscarriages, each in second or third month; then had a baby girl who died at the age of 5 months. (These pregnancies were by her first husband). Has not been pregnant since. Has never had any stomach complaint; no nausea, no vomiting, no indigestion or dyspepsia. Bowels have always been quite regular without physic. She had always been subject to nose bleeds.

Present Illness: She had been having much company during the month of December, 1923, and after they had all gone she cleaned house vigorously. When about through, her right side, at the waist line, was sore, ascribed to "overdoing." A week later she had cutting pains in that side (lower ribs), especially on deep breathing. However, she kept up and did all her work including the care and milking of a cow. She sent for an osteopath who treated her off and on for some time.

About January 26th she noticed considerable shortness of breath and swelling of the upper right abdomen. About that time she had an x-ray of stomach taken which was negative. Couldn't take a long breath because of pain in lower ribs. Bowels had been moving without a physic. Had eaten very little during January. For a week prior to consulting us (February 2nd) she had taken freely of buttermilk; this she kept down. Vomited some after taking cold water or grape juice in quantity, although small amounts she would not vomit. "Misery and full feeling" in upper abdomen were complained of. There had been no chills or chilliness, and no pain except as above mentioned and no headaches. Urination normal.

Physical Examination: An emaciated, middle aged, white, American woman, icteric, with gray hair. Adherent ear lobes. Skin dry and scaly and warm. No enlargements of cervicals. Axillaries, epitrochlears, inguinals and femorals are enlarged and palpable. Mammae small. Sclera quite yellow. Cataractous lens in right eye. Right pupil fixed; left pupil responds to light. Bloody discharge from nose for the past two weeks. Tongue coated and moist. Teeth fair; gums fair. Thyroid small. Respiration rapid; no abnormal sounds in chest. Heart beats rapid, fairly regular, no abnormal sounds. Area not enlarged. Abdomen markedly distended, especially above umbilicus and to right side. Markedly distended over epigastrium. Dullness extends to left side from left mid-clavicular line to right midaxillary line, a distance of 12 inches. From below a finger's breadth above umbilicus high up into the chest, a distance of 8 inches, is a tumor mass which moves very little with respiration and extends in right abdomen below umbilicus almost to crest of ilium. Lower abdomen and right side tympanitic. Flanks dull to percussion; no signs of ascites. Extremities are normal. Knee jerks not elicited. Temperature, 99.3; pulse, 112; respiration, 32; blood pressure, 158-130.

COURSE OF DISEASE

The patient entered the hospital on the first day of February, 1924. Her temperature (rectal) was 100.2; pulse, 96; respiration, 24. She was in the hospital thirteen days. Her temperature continued at about the same height throughout the disease. Her pulse varied between 88 and 110 throughout the course of the disease and her respiration between 24 and 30. She

took little nourishment at first, chiefly buttermilk, and milk and cream soups and egg-nog and fruit ices. Her bowel movements were inclined to be somewhat loose; later it was necessary to administer some laxative every two to three days. She was given tincture of digitalis, drops 15, every eight hours. The urine varied between 900 cc. and 350 cc. During the first few days she slept fairly well; became more drowsy during the latter part of the stay in the hospital. She frequently was troubled with vomiting and nose bleed. The icterus increased but slowly up to the time of her death. She died on the 13th of February in the afternoon, respiration continuing a number of hours after the inability to find the pulse at the wrist.

LABORATORY FINDINGS

Wassermann was negative. Haemoglobin varied between 74 and 57 per cent; the leucocytes between 8,000 and 14,000. The urine showed no albumin at any time. Specific gravity varied between 1.017 and 1.025. There was no trace of sugar. Two out of four tests showed some red cells in the urine. There were no casts in the urine.

DISCUSSION OF CLINICAL ASPECTS

Clinically this case gave the appearance of an acute malignant liver. The history of the present illness was so brief that one was compelled to think of some very malignant disorder. However, it is possible that this patient may have been ill for some months without making any particular complaint and that a diseased condition may have gradually developed and finally terminated in this fulminant manner.

From the history we learn that she had been up and about during the preceding week doing various kinds of housework. Among the striking symptoms was the enlargement of the upper abdomen, especially the right upper quadrant. This enlargement was perfectly smooth, solid, not fluctuating, painless, and developed rather rapidly. Icterus was not extreme; however sufficiently marked to be readily observable. Respiration was labored on account of the enlargement encroaching upon the right lung.

All of the symptoms and particularly the rapidly developing enlargement strongly suggested malignancy. The first blood analysis, however, did not carry out this idea, the haemoglobin being 74 per cent. However, the second one, which was done a week later, showed 57 per cent. The case

was regarded therefore as one of malignant liver disease.

The following is the autopsy report: The chest was not examined. The liver was greatly enlarged, weighing eleven and one-half pounds. The form had been maintained; the surface was smooth; no granulations and no lobulations; the color was dark olive green and its consistency was greatly increased, being very firm and hard. On section it was found to be uniform and greenish yellow in color; the bile passages presented nothing abnormal; the spleen was not enlarged, or but slightly. The edges of the liver were distinct and hard. There was an absence of ascites. The pancreas and the stomach were found to be absolutely normal. There was no enlargement of the lymphatic glands. There was some dilatation of the superficial veins of the abdomen.

A piece of the section of the liver was then transmitted to the pathologist and this is his report:

Sections from this tissue show a marked scarring with a destruction of normal liver cells. The cells are not divided into typical lobes, or "cell groups." The blood vessels are of slightly smaller size than normal and appear to be diminished in number. It is my opinion that this is a Hanot's Cirrhosis, although not presenting all of the typical findings. Certainly I am unable to find evidence of a malignant process.

DISCUSSION OF HEPATIC CIRRHOSES

Cirrhosis of the liver was first noted by Vesalius. However, Laennec was the first to describe it in detail and he specially gave attention to that type of cirrhosis which involves the portal vein. Not until 1895 did we have a clear differentiation of the other type of cirrhosis of which this is a case by Hanot. There are a great many different classifications of cirrhotoses but one can reduce them very readily to these two types, Laennec's and Hanot's. The chief points of differentiation are beautifully brought out in this case. No involvement of the portal vein; the absence of hematemesis and of ascites, and the large, smooth liver make it clear that this is not a case of Laennec's cirrhosis. In Hanot's cirrhosis, the liver is greatly enlarged but the shape is maintained, the consistency is increased, elasticity is diminished, the surface is smooth, having only very fine granulations, which is in marked contrast to the coarse granulations of portal cirrhosis.

One difficulty we have in making all the facts in this case coincide with classical

Hanot's cirrhosis is that this occurred in a woman 57 years and that Hanot's cirrhosis is usually of considerable duration, coming on very slowly in younger people. It is, however, altogether possible that this patient had had this disorder for a number of months. On the other hand, moreover, the points in favor of Hanot's cirrhosis are the pathological findings, gross and microscopic, the insidiousness of its onset, painlessness, and the progressive jaundice, the absence of portal vein involvement and hence absence of ascites and the death which unquestionably in this case was due to myocardial degeneration. It will be seen by the appearance of this liver that it has no resemblance to Laennec's type, that it is like the type of Hanot's which is described by Eichhorst as *elephantiasis hepatis*, or also by Schachmann as *l'hypermegalic hepatis*.

We feel that after a consideration of all of the symptoms and history of this case that this was a case of Hanot's or hypertrophic biliary cirrhosis.

Case Reported by Milton B. Miller, M.D.

Topeka, Kansas

ACUTE LYMPHATIC LEUKEMIA

Leukemia, first described by Virchow in 1845 as a rare disease, is with us today not so rare, but almost as obscure as far as etiology is concerned, in spite of our familiarity with its manifestations.

The acute lymphatic type, a case of which I wish to report, is the variety more frequently seen in early life. In this the course is rapid and resembles clinically at least an acute bacterial infection, that is with its febrile course, the tendency to hemorrhages and marked prostration. More recent studies in the etiology disclose the fact that authorities lean more strongly to this bacterial theory.

This case, a white girl, seven years of age, was admitted to Christ's Hospital February 13, 1924. Her family history was unimportant, both parents living and well, one brother in good health. When born she weighed 11½ lbs., was breast fed until 18 months of age, during which time she had numerous digestive disturbances. She seemed to be a rather hard child to raise and never appeared very strong. One year ago had scarlet fever which was followed by enlargement of the glands in the neck. This, however, subsided after several weeks and the patient seemed quite well until this past fall when her mother noticed that she was not eating as well as usual, she tired

easily and appeared to be getting pale in color. The latter part of December there was a return of the glandular enlargement in the neck, then early in January she developed a severe pain the left ear. Within a few hours bloody drainage appeared from this ear. The next day she had a severe nose bleed which was checked with difficulty. One week later another severe nose bleed which was only controlled with use of thromboplastin injections. For the next six weeks she was under the close observation of her family physician, during which time she had purpuric hemorrhages and also bleeding from the nose and gums and into the urinary and gastro-intestinal tracts. Bleeding had always been fairly well controlled with thromboplastin and fibrogen injections along with intermittent internal administration of calcium lactate. Further than this she had been given the arsenicals at various times.

On admittance the patient appeared to be in a desperate condition. She had a pale waxy appearance. Her temperature was 101 degrees, pulse 130, respiration 32, blood pressure, systolic 105, diastolic 50. Her face was swollen with a decided puffiness about the eyes. Pupillary reactions were normal. Teeth very bad, tongue coated and breath very offensive. Hearing was impaired in both ears and much worse in the left. Anterior and posterior cervicals were considerably enlarged. Chest examination showed lungs normal, respiratory sounds clear and no rales. The heart was enlarged slightly to the left of the nipple line. Hemic murmur distinctly heard over pulmonary area. Heart sounds both rather weak. Abdomen distended, not painful, no fluid made out within, liver palpable about two and one-half inches below the right anterior costal border. Spleen easily palpated, lower edge about three inches below the left anterior costal border. Extremities normal except for some fading purpuric spots on the left thigh posteriorly and on the anterior surface of the leg and ankle. The lymphatic system shows general adenopathy. Reflexes sluggish. The blood picture was quite characteristic. Hemoglobin 28 per cent, red blood cells 1,700,000, whites 820,000. Differential count—polymorphonuclears 1 per cent, large lymphocytes 22 per cent, small lymphocytes 75 per cent, eosinophiles 1 per cent, basophiles 2 per cent. However all the small lymphocytes are larger than the normal small lymphocytes and the larger ones are larger than the normal large lymphocytes. The blood coagu-

lation time was 9 minutes. Blood Wassermann anticomplementary. Urine shows albumen 2 plus, large number of blood and pus cells, and occasional granular casts. The patient was typed with the mother and father for possible transfusion—the mother's blood being found satisfactory.

On the second day after admittance of patient she was given x-ray treatment by Drs. Owen and Finney. On the following day there was a slight nose bleed quickly and easily controlled. The blood picture at this time showing—hemoglobin 20 per cent, reds 1,700,000, whites 484,000, polymorphonuclears 3 per cent, large lymphocytes 34 per cent, small lymphocytes 59 per cent, eosinophiles 2 per cent, basophiles 2 per cent. X-ray treatment was repeated the next day, both times of which a small dosage was given. The blood picture 24 hours after the second treatment showing quite a marked reduction in the hemoglobin, now down to 13 per cent, and some reduction in the red blood cells, now 1,480,000, the whites to 328,000—the remainder of the blood picture about the same as the previous reports. The patient had a septic temperature daily, ranging from 101 to 103, pulse 103 to 150, respirations 26 to 40.

Clinically she was losing ground. The x-ray was discontinued. On account of the kidney involvement the arsenicals or benzol was considered inadvisable. In view of the history of transfusions in these acute cases the possible benefits to be obtained were overshadowed by the desperate condition of our patient.

February 26, 1924, thirteen days after admittance, the patient had shown no improvement, but on the other hand was getting rapidly worse. The parents having been told their child could not live long, insisted on returning home with her which they did. Later reports informed us that she died several hours after her arrival home.

As we well know, acute lymphatic leukemia responds little to treatment. The arsenicals and benzol being given with some temporary improvement. Transfusion as an emergency for bleeding is of great value but as a curative treatment has been most disappointing in the hands of eminent authorities. Blood transfusion having been used not with any idea of effecting a cure but rather in the hope that the condition might be influenced to take on a chronic form with resultant prolongation of life. The surgery of the spleen in this acute form has also been most disappointing.

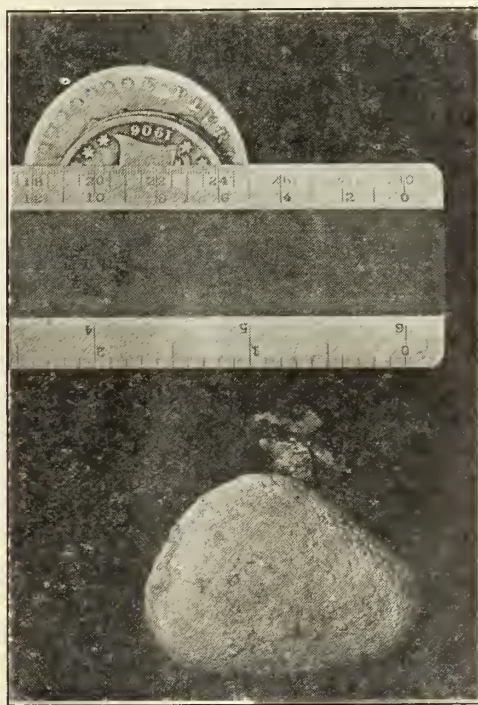
X-ray and radium have offered us the best results but here again as a rule but temporary relief. In the use of the x-rays it will be noted that the greatest effect generally comes from the first treatment and it is advised that white cell destruction under x-ray treatment should not be too rapid. Steady reduction when possible is much to be preferred. The red cell count is also to be closely watched under x-ray treatment. An increase in the pre-existing anaemia or decrease in the red blood cells is in general an indication to suspend x-ray treatment.

Arthur D. Gray, M.D.

DIVERTICULUM OF THE URINARY BLADDER, WITH STONE

Mrs. O. K., a housewife, white, age 49, a patient of Dr. B. F. Morgan of Clay Center, was referred to Christ's Hospital on account of frequent, painful urination with pyuria.

The patient gave no history of previous illness since typhoid at 18. She had borne



three children, the youngest now 16, and while the deliveries were difficult, none were instrumental.

The physical examination was negative as far as the present trouble was concerned.

The patient stated that in 1918 she began to have some bladder discomfort after riding in a car. This condition gradually

became worse. She had frequent desire to empty the bladder, urination was very painful and the pyuria was pronounced. This syndrome was not constant. There were periods of almost complete relief but these were always terminated by a return of the pyuria, followed closely by the frequent, painful urination. For six weeks prior to her admittance to the hospital all the symptoms had been markedly aggravated.

The patient was cystoscoped January 14th, 1923. The kidney function was normal. The sterile catheterized specimens from the kidneys were negative. The bladder was negative for stone or polyp but above and to the right of the urethral opening there was a stellate twisting of the bladder mucosa. There was pus and blood in the bladder urine. A cystogram showed a diverticulum of the bladder wall, shaped roughly like a three leaf clover about two centimeters in diameter and arising from a point just above a fragment or splinter of bone projecting upward from the superior surface of the right pubic bone.

Operation was recommended but the patient returned home. She had no treatment with the exception of irrigations of the bladder from time to time. The symptoms became so much more marked that she returned to the hospital after a little more than a year and was cystoscoped a second time February 23rd, 1924.

This examination was very much more difficult. The bladder was very irritable and had a capacity of only about one ounce. When the instrument entered the bladder it at once came into contact with an object giving off a distinct "click". The entire observation field presented the rough, chalky surface of a large stone. There was not room to manipulate the instrument enough to judge the exact size of the calculus. The x-ray showed a stone the size of a small egg springing from the diverticulum.

On February 28th, the patient was operated on by Drs. Bowen and Miller. A stone two inches in its long diameter, attached to a four-fingered root buried in the diverticulum was removed. The diverticulum, being on the anterior surface of the bladder and just above the pubic margin, was obliterated and a drain left in the bladder at this point. The superpubic wound has now healed, the patient is free from any of her old trouble and has returned home.

The most interesting thing about the case is the fact that neither the patient

nor her family could give us any history of an accident or an injury that might have caused the splintering of the pubic bone. Unless it resulted from trauma during one of her deliveries, the cause is unknown. There is little doubt, however, but that the injury to the bladder by the splinter was the cause of the diverticulum. The stone developed between the two examinations and sprang from a root formed in the diverticulum.

R

WICHITA HOSPITAL CLINICS

Orthopedic Clinic of Dr. E. D. Ebright
Wichita Hospital

SARCOMA OF FEMUR

I wish to show you this morning a patient who, when first seen by me on November 16, 1923, presented a very unusual condition of the lower end of the right femur.

I will give you the history of this case, describe as near as I can his condition upon first examination, show you the x-rays, give you my diagnosis at the time and the methods by which it was arrived at, describe the line of treatment followed and the results obtained, and then ask you to examine the knee, now, four months later.

I am showing you this case for two reasons. First, because I wish to give you a concrete example of the mistakes that are made by good men in diagnosing bone diseases and second, because I want you to see the results that may sometimes be obtained by x-ray treatment of properly selected cases.

There seems to be something about bone diseases that makes very good physicians forget their diagnostic facts. Theoretically, we all know the differential diagnosis between such conditions as osteomyelitis, syphilis of bone, tuberculosis, and rheumatism, but too often when a case presents itself we assume that such a condition as sarcoma or osteomyelitis could not possibly happen to one of our patients, so we treat them as rheumatism or sciatica, and some other doctor discovers the real condition. Our reputation suffers and the patient is done a distinct injustice.

I wish you to remember that the percentage of malignancies and infections of bone will be the same in your practice as obtain generally. Every week I see one or more cases of osteomyelitis that have been treated for rheumatism for so long that it is impossible that the patient escape except by

a long tedious course of drainage and bone destruction.

The history of this case as given me on his first visit on November 16, 1923, is as follows: Mr. C. H. T., age 35, family history of no interest, weight 130. Patient walked into office on crutches, bad color and generally looked like a sick man. Until present illness had always been an active, well man. Occupation, traveling salesman. Usual weight, 170 pounds.

In April, 1923, after some slight injury to right knee it began to swell and became very painful. This condition lasted for two or three weeks and then began to subside. At no time was he off duty. Was treated by a regular physician for rheumatism. In July following, the knee began rapidly to enlarge and again became very painful. He was treated by an irregular of some type and took a long course of baths and massage. On August 17, the teeth were rayed and the condition diagnosed as arthritis due to a focal infection and all his teeth were extracted. Following this his general condition became somewhat better, but there was no noticeable improvement of the knee. On October 25, an x-ray picture of the lower end of the femur was taken and a diagnosis of periostitis was made.

During this time no increased temperature was observed. On November 16, he came under my care. Temperature normal, white cell count 9,000, heart and lungs and kidneys negative.

The right knee was greatly enlarged, the skin having a dark livid color with many greatly enlarged veins covering the knee. The knee was flexed at an angle of 90 degrees. Patient was able to move it but very little. It was somewhat tender. Above and below Poupart's ligament there were numerous enlarged glands, not very painful to pressure. These had been present for about two months.

We recognized at once that this must be one of three conditions, a low grade osteomyelitis, a bone syphilis, or a malignancy, with the malignancy the most probable.

He was sent to Dr. Webb for x-ray diagnosis who reported it to be probably syphilis. Both the blood and the spinal fluid were examined and pronounced negative as to syphilis. On November 24, a large inguinal gland was removed and sent to Dr. Jaeger for section. His report was sarcoma. Realizing the uselessness of surgery in this case he was referred back to Dr. Webb for deep x-ray therapy.

In a few minutes I shall ask Dr. Webb to discuss the case from his standpoint.

At this date, "March 10," Mr. T. has gained about 40 pounds in weight. He says he feels as well as he ever did in his life. The knee motion is normal and there is no pain on pressure. He has discarded his cane and is now on regular duty. We recognize the fact that it is much too soon to report this as a cure, but we feel much encouraged. In this type of case unless the x-ray will cure them, we are helpless. In some types of periosteal sarcoma, with no break in the thin shell of bone and no metastases, amputation is indicated, but in this case of the medullary type it would be manifestly absurd to operate with the inguinal glands infected as they were.

About four years ago I reported a case of sarcoma of the lower end of the femur of the periosteal type in a man about 50 years of age, in exactly the same location as this case, but it was encapsulated, of the distinct periosteal type with no evidence of metastases. We did a hip joint amputation in this case. Today the patient is alive and well and with no recurrence.

After you have examined this knee, I shall ask Dr. Webb to briefly discuss the case from the x-ray standpoint.

DR. WEBB'S REPORT

Lateral view of lower end of right femur shows a slight periostitis extending upward two-thirds of the shaft. There is some indication of deposit of bone perpendicular to the shaft. The condyles have a mottled appearance with areas of rarefaction which are not sharply defined and are distributed throughout the head of the bone. At the junction of the internal condyle with the shaft there is a rarefied area which has broken through the cortex. Surrounding the condyles and extending upward for a distance of about eight inches is an increased density of the soft tissues which has the appearance of a tumor. An anteroposterior view of the same region shows the same pathology except the periostitis along the shaft of the bone is more marked than in the lateral position.

Differential Diagnosis: There are three conditions to be considered in this case. First, osteomyelitis; second, syphilis; third, malignancy. These are the only three conditions of bone disease in which there is bone production. The pictures are not typical of either so that a diagnosis without other aid is impossible. There is apparently not enough destruction in the medulla and cancellous portion of the bone to

account for even a low grade osteomyelitis. Also, I am informed the blood count is negative. Therefore, I feel we can rule out the first condition. Syphilis is the greatest bone producer of bone diseases, but it is extremely rare to find a syphilitic osteomyelitis. By the blood and spinal Wassermann being negative syphilis can be ruled out. Therefore, in all probability it is a sarcoma, sarcoma being the only bone producing malignancy. Later, I am informed that sections from a gland in the region of Poupart's ligament were pronounced by the pathologist to be sarcoma. Ordinarily, I would consider this a surgical case, but because of the glandular involvement in the region above mentioned, surgery is impossible. The case was referred to me for deep x-ray therapy, which was given as follows:

An area including and extending upward ten inches from the knee was given four exposures: two lateral, one antero-posterior, and one posterior-antero, two areas covering the remaining upper portion of the femur and the inguinal region ten inches square and two exposures of the same area were given posteriorly.

The following technic was used: 200,000 volts 4 milliamperes, 55 centimeters, target skin distance through a filter of 1 millimeter copper, and 1 millimeter aluminum, 240 milliamperes minutes at each exposure, total of eight hours being consumed for the series of treatment distributed over a period of eight days. Six weeks later plates made of the same region shows absence of periostitis and marked regeneration of bone in the areas which previously showed rarefaction. There was no evidence of tumefaction in the soft tissues. The swelling about the knee had disappeared. I cannot feel that this patient has had sufficient treatment and the same dosage should have been repeated eight weeks following the first.

Clinic of Erastus S. Edgerton, M.D.
Wichita

DUODENAL ULCER, PERFORATION

This patient is a large well nourished man, 33 years of age, rather pale in color and with facies showing marked distress and apparently in great abdominal pain.

About two hours ago while playing golf he was seized with a very severe and sudden pain in the epigastrium. He states that this pain "knocked him down and his stomach got as hard as a rock and drawn up like a knot." He did not vomit. He was helped into his own car which he drove

alone one and one-half miles to his home where I saw him.

Past History: About two and one-half years ago this patient came to me complaining of a typical chemical type of epigastric distress, coming on about two hours after eating and relieved by food and alkalis. There was no vomiting nor jaundice. Stool examinations gave positive guaiac tests for blood. Gastric analysis showed a marked increase of free HCl without blood and the flouroscope and films showed a constant deformity of the duodenal cap. His distress at that time had been present about six weeks and he had less severe but similar trouble at various times the two years previous, but with complete relief in the intervals. We made a diagnosis of duodenal ulcer and this man then went to a well known clinic and for eight months was on medical management for his ulcer with immediate marked improvement and finally an apparent cure. For the past one and one-half years he has had no distress from his stomach but has continued on a bland diet. For the three days preceding admission he has been quite constipated and yesterday took a cathartic but without results.

Family History: Father age 76, has always had "stomach trouble," mother died of cancer of stomach at age 62, three brothers two of whom are well and one who has had two severe hemorrhages from ulcer, four sisters, one of whom has stomach trouble.

Examination: Shows an otherwise apparently healthy man, with thighs drawn up and moaning with abdominal pain. His skin is cool and moist. His pulse is good quality and rate 80. Breathing is rapid and shallow, temperature is 99 degrees.

The head and neck show no abnormalities save a slight enlargement of the thyroid. The heart and lungs are normal so far as can be made out.

The abdomen presents a classical instance of board-like rigidity. There is tenderness all over the belly but most marked on the right side. There is no distention and the liver dullness is not diminished. His urine is normal. Leukocyte count 9,200.

Our preoperative diagnosis is perforated duodenal ulcer. This patient comes to operation relatively early, less than three hours after the onset of his pain. On opening the belly through a right rectus incision some gas escapes followed by a considerable amount of turbid fluid. There is a perforation about one cm. in diameter in the first

portion of the duodenum which is leaking freely. There is moderate induration in the duodenal wall but without adhesions.

The perforation is closed with a purse string of catgut and in so doing the lumen of the duodenum at this point is largely blocked. A posterior no loop gastro-jejunostomy is now done and the peritoneal cavity drained with three large cigarette drains, one through a suprapubic stab wound. The gall bladder and appendix are normal.

This patient should have a fairly easy convalescence. The short time that has elapsed since the perforation is greatly in his favor. These stomach and duodenal contents are usually not very infectious and the resulting peritoneal reaction usually mild. Of course, free drainage is indicated. I am very partial to gastro enterostomy in these cases unless the patient's condition is extreme. To properly close many of these indurated perforations you must practically obstruct the duodenum. Then too in the postoperative case you can start fluids and food by mouth so much earlier with safety, that it is a distinct immediate advantage, to say nothing of the subsequent comfort of the patient and the cure of his ulcer.

This patient will be given morphine and a tropin when awake. Fluids will be pushed by rectum and subcutaneously for the first 48 hours, and then he will be allowed small amounts of water and milk by mouth at frequent intervals. By the fifth day he may be given repeated small doses of milk of magnesia to move his bowels.

His condition on leaving the operating room is very good. Pulse is 112 and of better quality than when he started.

One feature of this case to which I would call your attention as a little unusual is the fact that this man had a perforation of a duodenal ulcer which was thought to be cured and with no recent symptoms or distress except that yesterday he thought he was constipated and took a cathartic.

Reported by Paul C. Carson, M.D.

Wichita

TUBERCULAR MENINGITIS

* Baby T. Age three months, the second child of healthy parents. There had been no miscarriages or deaths. Family history negative for any chronic illnesses. No history of any exposure to tuberculosis. Born at full time after normal delivery. Normal at birth. Breast fed and had never been ill. Gained steadily.

She became ill about February 1st. Had

a few loose, greenish stools, vomited once or twice and was fretful and very erratic about taking her food, nursing only a few minutes at a time. Did not notice things well. The mother remembered that she cried out sharply two or three times a few nights before the illness began. She had had some convulsive twitchings, but no convulsions, and temperature had not been high. Slight head cold. No alarm was felt until she seemed no better after five or six days.

Seen in consultation February 5th.

Physical Examination: She was a well developed and well nourished child, skin pale, lying quietly with an uncomfortable expression. Head normal in size and shape. Anterior fontanelle well open 2x3 cm. and was tense but not bulging. Ear drums normal. Eyes, conjunctiva, somewhat injected, and a slight mucopurulent discharge from nose. Pupils reacted to light sluggishly, but she did not notice objects well. Mouth and throat normal. There was some rigidity of neck but no neck sign. She fussed when moved. Heart and lungs normal except for a few scattered rales. Abdomen sunken. Some dehydration, otherwise negative. Edge of liver felt. Spleen not felt. Extremities normal but she held her arms and legs somewhat rigidly. Knee jerks were present and equal, but not active. Kernigs sign, but decidedly not definite. Contralateral reflex absent. Babinski and Oppenheim absent. Skin clear, no general lymph node enlargement. Urine acid, clear, no albumen or sugar, few pus cells. Temperature 102 degrees, pulse 132, respiration 28.

Diagnosis: History throws no light on diagnosis. Otitis and pyelitis can be excluded, on normal condition of ears and urine. Pneumonia can be ruled out on account of low respiratory rate and its relation to the pulse, absence of cough or lung signs. The character of stools shows some derangement of intestinal tract, but this is not severe enough to cause the symptoms that we have, and such stools are seen in most all illnesses of infants. Normal size and shape of the head and absence of separation of bones of head show that the bulging of the front is not due to internal hydrocephalus.

For all practical purposes the only cause of intra-cranial pressure sufficient to cause any bulging of fontanelle is meningitis. The failure to notice, slow reaction of pupils and stiffness of arms and legs is corroborative evidence. This did not develop in the course of any other disease. It is

therefore either tubercular or cerebrospinal. It is often difficult to distinguish between these two forms in infancy. The slow, rather than stormy onset and absence of high temperature, vomiting and marked signs of cerebral irritation are in favor of tubercular type.

A lumbar puncture was done, after the child's condition had been improved with a hypodermoclysis of six ounces normal saline. She took her feedings much better that night. Fifteen cubic centimeters of fluid, cloudy as compared to tap water was removed under much pressure. A small fibrin clot was formed, fluid contained 670 cells, 94 per cent small mononuclear. No organisms were found in smear. Globulin test was positive. Fehling's solution was not reduced. A smear made after two hours, centrifugalization in a high power centrifuge after heating the upper one-half of fluid in tube, revealed one group of four and another of two acid fast bacilli. Positive diagnosis of tubercular meningitis. Prognosis hopeless.

Child seemed to improve to a certain extent, took food better and rested better. She died just three weeks later.

—R—

A New Antiseptic Dressing

The chlorine compounds seem to have been superseded by a new synthetic chemical antiseptic, and one, it is claimed, which does not labor under any disadvantages with respect to the preparation of solutions. This new product contains no chlorine, but bromine instead. Chemically it is known as dibrom-malonyl-ureide; commercially as Dibromin. Dibromin is offered by Parke, Davis & Co., and like other specialties of this house, is offered on the strength of both laboratory and clinical experiment.

We are told that it has been used in upwards of five thousand cases, such as cellulitis, abscess, carbuncle, infected burns, trophic ulcers, suppurating lymph glands, compound fractures, surgical infections, dermatitis venenata, etc., and with such success that it is now recommended in all sorts of accessible infectious processes—on the same principle as that which governs the application of the chlorine compounds. It has the unusually high phenol coefficient of 105.

The one outstanding difference, however, between this new antiseptic and older ones of the same class is the ease with which it can be made ready for use. Add the Dibromin to the water, and shake a little; that

it all. Dibromin is soluble in water up to 4 per cent. It is put up in 6-grain capsules. One capsule to a gallon of water makes a 1:10,000 solution.

—R—

Arch Supports.

The shoe salesman and the brace maker nowadays presume to be diagnosticians of foot ailments as well as dispensers of all sorts of supports and appliances for such ailments. Without regard to the nature of the affection, static or inflammatory, traumatic or of circulatory disturbance, secondary to a remote focus of infection or to a constitutional disease, a stock or made to order contrivance is found indicated and is "dispensed." The ill effect on the public is self-evident. To overcome this evil, A. J. Gottlieb, Los Angeles (*Journal A. M. A.*, January 26, 1924), states it is essential that the physician should enter more fully into the foot complaints of his patients and not refer them to the shoe store or brace maker for relief. Pain alone, produced from straining the ligaments, fasciae and joints of the foot, serves as the indication for a supporting device as a temporary measure, to be discontinued when pain ceases. It should not be expected to restore or rebuild the arches. The only agents for this are the muscles, to which all attention should be directed that they may regain strength and function to perform their task. The object of the support is fulfilled by a felt pad skived according to the individual need. Any rigid foot support is harmful because it converts the elastic foot into a rigid system, is liable to cause periostitis, and prevents function of the plantar muscles. A laced shoe with a flexible or semiflexible shank should be provided. It should fit snug enough to make the foot follow its movements, and should have a front sufficiently wide and long to permit spreading the toes and lengthening the forefoot in weight bearing. The height of the heel must be chosen for each instance and must vary according to the ability of the patient to dorsiflex the foot. The high heel habit should be overcome only gradually. Reconstruction of the arches, regaining muscle strength and acquiring the habit of correct foot posture are accomplished by means of physiotherapy, exercises and instruction in correct standing and walking. Physical measures are applied to all tender and painful feet in order to regain elasticity, reduce inflammation of joints and soft tissues and dissipate effusion. Exercises of the simplest kind should be taught.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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The Annual Meeting of the Kansas Medical Society will be held at the Lassen Hotel, Wichita, May 7th and 8th. Program on Page 122.

—R—

Before the next number of the Journal will appear, the annual meeting of the Society at Wichita will have been held. It was the opinion of the Council that a two days' session would be more satisfactory than the three day sessions we have been having for some years past.

One of the principal arguments against a three days' session is that members will not remain so long in attendance and those who are so unfortunate as to be placed at the end of the program are compelled to read their papers very largely to empty seats. This seems to have been the case at several meetings and is of course a very excellent argument against a three days' session, provided the same thing does not happen when a two days' session is held.

It seems, however, from former experience, with the time usually devoted to the business of the Society, that some part of the program must be carried on while the House of Delegates is in session. In this case the same complaint has been

An effort will be made at Wichita to made, that some papers have had a very small audience.

hold the meetings of the delegates at such times as not to interfere with the program. Up to this time this has never been accomplished, but it is hoped that by wasting as little time as possible with business affairs, it can be done.

There are several arguments for a three days' session—provided that each of the three days can be made equally attractive. It is probably true that some of the members cannot leave their business longer than two days, but if there are three days, many who find themselves unable to come the first day will come on the second or the third day.

With the introduction of addresses by men of note, several of them, the program has been made more attractive and the attendance has increased, but this should not be at the expense of our regular program. It is a notable fact that the papers presented by our own members during the past years have been of a much higher standard than was formerly the case. Members should be encouraged to prepare papers for the state meetings, in fact the length of the program should be increased, more papers should be read each year. Of course this is impossible if the sessions are shortened. We have never had too much time for the program. It has always been necessary to limit the discussions, yet the discussions are frequently more interesting and more instructive than the paper.

For some reason we do not have the right attitude toward these annual meetings. A good many like to attend because they have a good excuse to get away from business for a day or two, some like to "mill around" and meet old friends and classmates, while a certain number, increasing annually, like to hear what the other fellows are doing in medicine and how they are doing it, to exchange opinions and experiences in their particular lines of work. The Society meetings might, to good advantage, be made particularly attractive to the latter group of

members. At any rate the State Society should occupy a large and important place in medicine. It was never intended to be a strictly scientific body, a licensing power was embodied in its incorporation implying a general supervision of the practice of medicine. Naturally its business affairs are not unimportant and it has not infrequently happened that matters of much concern to the profession of the state have been too hastily or too carelessly considered. It is hardly safe at any time to rush through the business that properly comes before the delegates. The business of the Society as well as the scientific program should have plenty of time.

The by-laws of our Society provide that every paper read at the annual meeting shall become the property of the Society. A considerable number of these papers have not been turned over to the secretary. According to the by-laws referred to, a member having read his paper has no further control of it. The Society can dispose of it as it chooses. This is as it should be. Our membership is sixteen hundred, but of this number not over four hundred attend the annual meeting. The eight hundred who have not been able to attend the meeting may not for that reason be deprived of the benefits of the Society. These members are entitled to the privilege of reading all the papers read at the annual meetings. It is for this purpose that they are published in the Journal, and it is largely for this purpose that the Journal is published.

Unfortunately we have no control over the papers read by invited guests, they are not subject to our regulations. Occasionally one is gracious enough to present us with his manuscript and the absent members have an opportunity to read it in the Journal.

There is no valid reason for any exceptions to be made in the enforcement of this by-law. A paper which has not been completed or one which requires extensive revision, is not ready to be presented to the members of the Society.

CHIPS

In the early days there was much controversy over the existence of typhoid fever in Kansas, but who could argue against one with such experience as this:

In a paper read before the Kansas Medical Society in 1879, the author states: "I have in the last few months had under my charge at a rough estimate not less than fifty cases of articular rheumatism" and in another place he says: "During the past eighteen months I have treated some two thousand and six hundred and fifty-eight cases (of fever). Of this number one thousand and eighty-six were of the characteristic fevers of this latitude of intermittent and remittent type; some with gastric and some with enteric complications, but none with what I consider strictly typhoid features; at any rate, they yield kindly and readily to the treatment I have advocated (quinine) and thus in my opinion, it puts an end to the controversy of typhoid fever for our latitude; by which I mean the typical typhoid fever of the East."

The Metropolitan Life Insurance Co. reports a drop in the mortality rate from diabetes, in its policy holders, from 17.2 per 100,000 in 1922 to 16.1 in 1923. Its statistical bulletin says:

"The interesting fact is, of course, that the lower diabetes death rate last year was contemporaneous with the beginning of the more or less general use of insulin to check the devastating effects of this disease. It is too early, as yet, to say finally that the sudden check in the rising mortality from diabetes is to be credited to the use of this apparently successful treatment. Before this can be done we must have figures showing declines for a series of years, and a greater rate of decrease must be shown. If the rate drops again in 1924 it will be safe to assume that there is some well defined cause for the reversal of the trend which was observed between 1919 and 1922. And, as there appears to be no other outstanding reason for the check in diabetes mortality last year, it is extremely probable, to say the least, that the increasingly successful and widespread use of insulin was the chief factor in lowering the death rate from this disease.

"The mortality figure for diabetes, so far in 1924, is more than encouraging. The January death rate for the industrial policy holders was 17.2 per 100,000 as compared with 20.3 for January, 1923. Obviously, we cannot gauge the outcome for 1924 by

what has transpired in a single month; but the change is in the right direction. If this rate of decline persists throughout the year the fall in the death rate will be more pronounced than that recorded in 1923."

Many children do not like cow's milk or cannot drink it because they have trouble in digesting it, but if mothers will add about one-half teaspoonful of gelatine—which should be first soaked in a little cold milk and dissolved over hot water or in hot milk—to the glass of milk, it will make the milk not only more digestible but more nourishing as well. The gelatine prevents the curdling of the milk in the stomach, breaks it up into small masses, and promotes the complete absorption of its nutritive properties. It may also be given to the children in their morning cereal and in broths and soups.

The dangerous fallacy that the atmosphere in a closed garage is safe as long as an automobile engine continues to function has been disproved by a test conducted by engineers of the Interior Department at the Pittsburgh Experiment Station of the Bureau of Mines.

An ordinary touring car of popular make, which is operated daily, was run into a brick garage having a capacity of approximately 3,000 cubic feet, a dog was placed upon the driver's seat, and the engine allowed to continue running at an idling speed, which is much slower than the average motorist would use for "warming up" purposes. The doors of the garage were closed, and after twenty minutes operation of the engine, the dog lost consciousness and fell to the floor of the car. An analysis of the air at this time disclosed the presence of 1.3 per cent of carbon monoxide, which is sufficient to cause unconsciousness and death in a few minutes. The automobile engine was allowed to run until it stopped from lack of air, which occurred at the end of two hours, when the percentage of carbon monoxide present in the garage atmosphere was indicated as 2.1 per cent, an almost instantaneously fatal amount.

Gonin publishes two cases of serous apoplexy following administration of arsenamin. He reviews the present knowledge of such mishaps during the treatment of syphilis. This condition usually starts on the third day after the injection, with headaches and convulsions, which may be followed by coma and death within from

24 to 48 hours. The serous apoplexy is due to intolerance for the drug, and may occur even in the first stage of syphilis. Serous apoplexy follows more often the second or third injection, while the Herxheimer reaction is more likely to appear after the first. The apoplexy requires immediate administration of epinephrin (0.25 mg. intravenously, followed by injections of from 1 to 2 mg. intramuscularly) and a change of the drug. Herxheimer's reaction passes, if the antisyphilitic treatment is continued. It is impossible to predict serous apoplexy. The condition is often fatal, but there are no sequelae if the patient survives. Milian calls it a nitritoid crisis localized in the brain. The Germans call it hemorrhagic encephalitis. (*Jr. A. M. A., April 14, 1923.*)

What to feed the tuberculosis patient is one of the dietary stumbling blocks. The consensus of expert opinion chooses milk and eggs in varying proportions and amounts. However, as many patients either cannot eat the proper quantities of these two excellent foods or do not properly digest them when eaten, gelatine has been found to be of considerable aid in the feeding of such cases. It may be used as a carrier for the raw eggs, which may be made into a palatable dish, or may be added to soups and hot drinks or incorporated in the milk or in egg nog. The amount of gelatine fed per day must be regulated according to the personal characteristics and wishes of the individual. For the most part, the patients find the gelatine combinations very palatable and are not averse to taking them in such quantity as desired.

Dr. Alfred Friedlander called attention to the fact that congenital lues is in many cases the cause of such myocardial degeneration. There was no typical form of myocarditis which can be recognized as luetic. Notes the rapid improvement of cardiac condition in these cases under antiluetic treatment. Antiluetic treatment was suggested in myocarditis in young children irrespective of a positive Wassermann test and regardless of the fact that other definite signs of congenital lues were lacking.

Dr. Borden S. Veeder said that in his experience in seeing about 500 cases of syphilitic children he had seen only one aneurysm, he found that simply finding the spirochete in heart disease did not necessarily mean that the condition was due to syphilis. (*Medical Record, October 15, '21.*)

The Abbott Laboratories have issued a

very pretty card, suitable for framing, on which is printed the following sentiment:

THE PHYSICIAN'S PLEA

I am your physician.

I need your co-operation; I desire your appreciation of my efforts.

I want to hold your friendship and to have you cherish my good will.

I aim to progress with my profession so as to give to you the most efficient treatment.

I desire to do good unto the poor and treat without financial reimbursement, deserving, needful patients; this is the commandment of all physicians.

It should be our mutual desire to give to each other our best efforts.

I am human.

I subsist not on praise nor mutual admiration.

The most sincere appreciation you can show me is to reimburse me as my services are rendered.

Thus I am better enabled to carry on fitly; to progress; to give to you and your fellow men my best endeavors.

I am your physician, so I ask that you do unto me as you would have others do unto you were you the physician.

DR. R. RUEDEMANN, JR.

These cards will be furnished to physicians desiring them by the Abbott Laboratories.

— R —

Medical and Semi-Medical.

BY THE PRODICAL

Mercurochrome is highly recommended for staphylococci blood poisoning.

Dr. Samuel J. Holmes, professor of Zoology of the University of California, in an address at the First Congregational Church, Los Angeles, before the Pacific Southwest Theological Conference, predicted a dark future for America if religion (the churches) does not join hands with science in an effort to check the birth of imbeciles. He said: "The nemesis of degeneracy hangs threateningly over the organic world, including humanity. We need not expect to build a high grade of civilization out of a low grade humanity. The fact that this nation is culturally flourishing does not mean that we may not be biologically degenerating." The medical profession has and does lead a kind of Hyde and Jekyll existence—preaches better babies and at the same time tries to prolong the life of the unfit. This seeming anti-

podic position is forced upon it by environment.

More people die in January than in any other month of the year. But August is sweepstake year for accidents. The witness for these statements is the Insurance Company Bureau. But why? Too much celebrating during Christmas and New Year times? Too many swear off from drinking and lying and the shock kills them in a few days. Sirius the old "Dog Star" queers them in August? Fool answers? Well why?

Kleig-eyes and vac-eyes are common in movie actors. The vac-eye is caused by working in or facing bright light too long. There is no pain or unpleasant sensation experienced by the subject, except there is a filmy vacuum produced in the eye, blurring the sight, which renders the person unable to follow the lines. Evidently the prolonged exposure to a brilliant light uses up the sensitive fluid in the macula—the visual purple—and thus blunts the perception of the object by the nerve cells.

Vac-eye gets its name from the vacuum complained of by the patient. Treatment removes the cause by rest and protecting the eyes with plain ground smoked glasses. But any cause producing such an effect upon an organ so as to prevent its functioning is injurious and may destroy the function of such organ permanently. The field of vision is not affected but the point of acute vision—the macula lutea.

The claim is made that higher education is more devastating than war because of the prevalence of smaller families among the highly intelligent class. This is one of nature's methods in apexing the human with brain substance, in having an excess of glandular activity to furnish abundant material to choose from.

Recreation and amusement are not one and the same. Recreation is where one takes part in the game. Amusement is where one is an onlooker, a spectator.

Statistics show that 14,416 persons were killed by motor vehicles in the United States in the year ending December 31, 1923. Approximately 412,000 persons were more or less seriously injured. In Los Angeles there were 438 deaths by accidents, 232 by autos and more than 60,000 injured in 1923. Rich harvest for surgeons.

A man's brain cells may become vacuola-

ted by non-use. That is when the active cell substance is not regularly exercised the cell lies dormant too long and fills with serum—becomes water logged and the man becomes possum brained; the active, living, energizing cell substance having been replaced by a water serum. When a large number of those brain cells are put out of commission by non-use or lack of exercise they function irregularly or quit and there is growing forgetfulness and if nurtured too long by non-use may end in over developed forgetfulness—dementia.

Bull frog endocrinology will be a handmaiden soon with insulin in diabetes. They will not supplement each other. Insulin is a palliative and the frog glands are a preventive. Drs. H. E. Jordan and C. C. Speidel of the University of Virginia have demonstrated by experiments that frogs can live minus the spleen. While frog hair will be used to adorn the cheek of the maiden and the upper lip of the boy bordering on puberty and frog legs to tickle the palate of the epicurean the discovery for the use of bull frog glands will put the price of the amphibian out of sight. However, since we are forcing our government into paternalism, no doubt but what Uncle Sam will make provision to buy all the frog glands on the market for us and everyone can have at least a cheap pair.

The cheap glands may not be as good lookers but they will get us there just the same. We can have our spleens removed when the frog glands are in situ, and be immune to diabetes. We may, however, develop a bull frog voice and an intermittent gait, and the conservative surgeon may hesitate to remove the spleen and tack on the frog glands fearing his patient may croak.

J. L. Pomeroy, M. D., county health officer of Los Angeles county, has sent out a circular urging all dog owners to immunize their dogs against rabies by inoculation. The county supervisors have passed an ordinance to that effect. And that all dogs, not corralled or kept chained must wear a metal tag issued by the Los Angeles County Health Department indicating immunization. Any local veterinarian will jag the "Anti-Rabies Virus" into the dog and issue a certificate of immunization and the metal tag. After June 1, 1924, all dogs will be either captured or shot if found at large not wearing an immunizing tag. Eight hundred and eight unprotected dogs died

of rabies in Los Angeles county in 1923 and nine persons.

A few years ago the writer's grandson, aged 12, was severely bitten on both hands and arms by a rabid dog. The dog was kept in a cage and died within a week. His head was sent to the state bacteriologist and the dog's brain and medulla were found studded with negri bodies. Several months ago our dog was bitten by a rabid dog. We gave him five doses 5 c. c. of anti-rabic virus. There was some reaction shown but at the present writing the dog is well.

If the animal world could have a vote on the benefit vivisection and the use of serums have been to it it would be unanimously in its favor.

The lie detector is being used by the police department in Los Angeles and in the coast cities in detecting suspected prevaricators and criminals. It is being used instead of the sweat box or the third degree. As yet the heretic is inclined to class the lie detector with Abram's blood test of the child and its supposed father in determining its parenthood. The claim is made that over "a period of three years testing and of the 5,000 cases, not one actual failure has come to light." Room for hedging? We are open to conviction, but while denying nothing need a little more light and to be shown more proof, for the criminal hunters and the legal profession, the same as the clerical, too often accept theory for fact.

One outstanding difficulty to overcome is the mental, individual classification. Detection of the liar or criminal is dependent on the blood pressure as shown upon the emotiograph or instrument which registers the emotions. The emotions are shown by the heart action—blood pressure. The heart's action is controlled by the sympathetic nervous system and hence not under the control of the will power. Sounds received or impinging upon the sense nerve of hearing—the auditory, together with those of sight, the eye, showing the immediate surroundings or environment—make certain impressions on the nervous system which may be likened to the soft velvety touch of the maiden's hand or the prick of a briar. Either sensation causes increased blood pressure. In like manner, excitement, "fear, embarrassment and other emotions" cause certain reaction.

But the claim is made that by a long time experiment or rather a great number of experiments or checkings up they are enabled to eliminate the innocent and detect the

guilty. In other words, nervousness, fear and embarrassment did not cause the same reaction as did the volunteer lying, as shown on the emotiograph. This acute sensitiveness of the emotiograph and particularly the ability of the manipulator is equalled only by the chemical reaction in the blood, showing consanguinity of child and father.

True, we are not able to comprehend the attenuation and it may be for the same reason the old Negro Taylor told Secreatry Chase, of Abraham Lincoln's cabinet, who was getting his coon skin coat mended. Chase thought to badger the old Negro and said to him: "Mose, I do not know why a coon does not wear his fur in the inside of his skin instead of on the outside."

"Mistah Chase," said Mose, "if you had as much sense as a coon you'd know."

A mental delinquent is not necessarily a mental defective. But in practice there is a oneness.

Tests are now being made to cure the insane by an exchange of gonads. The similarity consists only in the patient's being eccentric above normal or outright daffy—insane. For example those of a religious fanatic being exchanged with those of a liberal zealot. However, it is a fact that experiments are now being made by an exchange of the glands of the insane where the functional or pathological cause produces the opposite effect in the two subjects.

Specialism is becoming attenuated. There is said to be such a specialist in Los Angeles. He confines his practice to the left side of the nose. This goes the umbilical specialist one attenuation better.

There is one invention man can claim over that of the brute animal, viz., the prevention of motherhood. It is not yet known just what age of man's existence he hit on the discovery, but it was surely a mark of differentiation. Sometimes the animal kills its offspring, but not so frequently as does man.

—————R—————

Medical Post-Graduate Courses In Summer Session, 1924.

(The post-graduate courses offered in the Summer Session of 1924 in Kansas University School of Medicine, Kansas City, Kansas.)

These courses are designed especially to meet the needs of the general practitioner who wishes to brush up in medicine and become acquainted in recent advances in

medical science and to give him practical application in the modern clinical and laboratory methods and the diagnosis and treatment of disease. Furthermore, it also offers an opportunity to become acquainted with the more recent technical procedures in the diagnosis and treatment of disease.

Three courses will be offered by the department of medicine each given two mornings a week so that all three may be taken. One of these courses is that given by Dr. Russell L. Haden who has charge of the clinical laboratory diagnosis and metabolic clinic of the University Hospital. This course will include practical work in blood chemistry, serology and basal metabolism. The value of blood sugar tolerance test in diabetes, blood urea, creatinin and chloride determination in nephritis and intestinal obstruction and the significance of focal infections are some of the subjects that are scheduled in his course. In addition, ample opportunity will be given to acquire skill and experience in such elementary procedures as blood counting, examination of blood and sputum smears, gastric and duodenal analysis, urinary examination and bacteriological methods, Schick's test for bacteria, etc. The work will be arranged where possible to fulfill the needs of the individual physician without requiring him to stay the entire four weeks if he is not able to remain the entire course.

On two mornings of the week, medical classes will be devoted to a series of bedside clinics and ward walks by Dr. Peter T. Bohan, professor of clinical medicine. This will include the demonstration and examination of patients with a thorough discussion of the differential diagnosis and therapy supplemented by fluoroscopic and x-ray findings, Wassermann test, metabolism studies, blood chemistry, etc.

For the remaining two mornings of the week clinical courses will be given by Dr. Ralph H. Major, professor of medicine. In this course special stress will be placed upon physical diagnosis. Patients will be assigned to members of the class who will make their own physical examination followed by general discussion of the case. Newer methods of treating diabetes including the use of insulin will be taken up and illustrated with cases treated in this hospital. A constant effort will be made to show how an accurate diagnosis and successful treatment may be made in all cases with such equipment as is found in the average practitioner's office.

These clinical courses will be given from

10 to 12 each morning. The department of Pathology will give courses in autopsy technique, tissue diagnosis and functional pathology from 8 to 10 each morning. This work is given by Dr. H. R. Wahl, professor of pathology. The work given at this period is of the nature of a clinic in which tissues taken at autopsy are used as a basis of the discussion rather than a living patient. A careful account of the clinical picture is first given in order to correlate the clinical findings with the pathological material present. When an autopsy is performed a conference will be held with the clinical men in order to compare the findings of the clinics with those of the post mortem room. Considerable time will be devoted to discussion of pathological physiology illustrated with museum and fresh autopsy material. While this course is not especially designed for the general practitioner, in former years most of the physicians have elected it and have found it very instructive. While the above four members of the staff have planned courses especially for post-graduate physicians all students enrolling in the summer session will be welcome and given instruction in clinics given by other members of the staff such as Orr, Francisco, Davis, Skoog, Sudler, Ockerblad, Hertzler, Guffey, Irland, Dennie, Clendenning, Black, etc. Most of these are clinics and specialties such as gynecology, obstetrics, pediatrics, neurology, genito-urinary, dermatology, given between 1 and 4 in the afternoon and can be attended without conflicting with the medical clinics in the morning.

The only fee required is the regular summer session fee of the university, which amounts to \$10.00. The session will begin June 16 and lasts four weeks, ending on July 12, except the courses in pathology which will end two weeks later or July 26. While attendance throughout the four weeks course is most desirable, enrollment for a shorter period should prove profitable. For further information address the Dean of the Medical School, Kansas City, Kasas.

—R—
THE SAMUEL D. GROSS PRIZE—FIFTEEN
HUNDRED DOLLARS

Essays will be received in competition for the prize until January 1, 1925

The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology

or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22d St., Philadelphia," on or before January 1, 1925.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

William J. Taylor, M. D.

John H. Jopson, M. D.,

Edward B. Hodge, M. D.,

Trustees.

Philadelphia, March 15, 1924.

—R—

The Chicago Session.

RAILROAD RATES FROM THE PACIFIC COAST TO CHICAGO

Physicians who expect to attend the Seventy-Fifth Annual Session of the American Medical Association, to be held in Chicago, June 9-13, should make careful inquiry at railroad ticket offices, before purchasing tickets, as to whether or not summer excursion rates are in effect. The summer excursion rates from the Far West have, for several years, been lower than the rate that has been specifically granted for the coming Chicago session, and it is understood that it will be lower this year. Summer excursion tickets, it is said, will permit stopovers to be made on the going, as well as on the return trip. Definite information concerning this can be secured from railroad agents.

All who purchase tickets sold specifically for the Chicago session from points other than those located in the Far West *must*

secure return certificates at the time tickets are purchased in order to get the advantage of the rate of one and one-half fare.

HOTEL RESERVATIONS

While one or two of Chicago's centrally located hotels have announced that their entire capacity has been reserved for the week of the coming session, it nevertheless seems that physicians who intend to be present have been somewhat slow to reserve hotel accommodations. This is unfortunate, because Chicago has regularly a very large hotel population and it is not safe to defer making reservations. Dr. Frank Morton, Room 1522, 25 East Washington Street, Chicago, is chairman of the Committee on Hotels, and will take pleasure in helping members and fellows to secure comfortable accommodations.

Members of the House of Delegates who have not secured reservations should write at once to the Drake Hotel for such accommodations as they desire. *Tentative* reservations have been made at the Drake for all members of the House of Delegates, but they must advise the hotel as to just what they want and make the final reservations. It will be necessary to release rooms that have been tentatively reserved, but not called for by delegates, within a reasonable time before June 9.—*Jour. A. M. A.*, March 29, 1924.

—————R—————

Fifty-Eighth Annual Meeting of the Kansas Medical Society, May 7 and 8, Lassen Hotel, Wichita, Kansas.

Local Committee on Arrangements—Dr. E. S. Edgerton, Dr. J. W. Cheney, Dr. C. H. Briggs, Dr. W. P. Callahan and Dr. H. N. Tihen.

Local Committee on Entertainment—Dr. W. G. Gillett, Dr. R. W. Hissem, Dr. T. S. Finney, Dr. A. D. Jones and Dr. O. W. Swope.

Entertainment—Theater party will be given for the doctors' wives on Wednesday afternoon, May 7th.

There will be an auto ride through the city for the doctors' wives on Thursday morning, May 8th. Cars will leave the Lassen Hotel at 10:00 a. m.

Arrangements have been made with the golf clubs of the city, so that members of the society who wish to, can play at any time.

Wichita Hotels—Hotel Lassen, Hotel Broadview, Hotel Eaton, Hotel Coronado and Hotel Hamilton.

Guests—The following men have accep-

ted invitations to appear on the program: Dr. Frank Billings, Chicago, a member of the Board of Trustees of the American Medical Association; Dr. Charles O. Giese, Colorado Springs; Dr. Willis C. Campbell, Memphis, Tennessee; and Dr. H. R. Allen, Indianapolis, Ind.

Meeting of County Secretaries—This meeting will be held in the private dining room adjoining the grill at the Lassen Hotel, at 12:30 p. m., Wednesday, May 7th. Luncheon will be served.

Meeting of the Council—Meeting will be held in the Lounge of the Hotel Lassen, Wednesday, May 7th, at 8:30 a. m.

Meeting of the House of Delegates—This meeting will be held in the Spanish Ball Room of the Lassen Hotel, on Wednesday, May 7th at 7:30 p. m. The following order of business will be observed:

Reading of Minutes of Last Meeting.

Reports of Secretary, Treasurer, Councilors and Medical Defense Board.

Reports of Standing Committees.

Reports of Special Committees.

Unfinished Business.

New Business.

The Kansas Medical Women's Association will hold a noon luncheon Thursday, May 8th, in private dining room adjoining grill, Lassen Hotel.

Thursday, May 8th—Meeting of the House of Delegates at 8:30 a. m., in the Lounge of the Hotel Lassen:

Roll Call.

Election of Officers—President, Three Vice Presidents, Treasurer, One Delegate to A. M. A., Councilor for the First, Second, Seventh and Eighth Districts, and two years unexpired terms for Fifth and Eleventh Districts.

The following Scientific Program will be given in the Spanish Ball Room, Lassen Hotel:

Wednesday, May 7th, 9:00 a. m.

"Medical Education in Kansas"—Dr. E. D. Ebright, Wichita, President.

"Justice for the Streptococcus"—Dr. M. L. Bishoff, Topeka. Discussion opened by Dr. W. M. Mills, Topeka.

"Gas Bacillus Infections"—Dr. W. P. Callahan, Wichita. Discussion opened by Dr. Hugh Wilkinson, Kansas City.

"Head Pain of Nasal Origin"—Dr. H. L. Scales, Hutchinson. Discussion opened by Dr. J. W. Cheney, Wichita.

"The Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax"—Lan-

tern Slides)—Dr. Chas. O. Giese, Colorado Springs.

"Laryngeal Tuberculosis"—Dr. E. G. Ganoung, Salina. Discussion opened by Dr. R. E. Cheney, Salina.

"Surgical Evaluation of Abdominal Pain"—Dr. H. C. Embry, Hoisington. Discussion opened by Dr. E. E. Morrison, Great Bend.

"Duodenal Perforation"—Dr. H. L. Charles, Atchison. Discussion opened by Dr. W. K. Fast, Atchison.

"Eye Injuries and Diseases Treated With Milk Intra-muscularly"—Dr. James W. May, Kansas City. Discussion opened by Dr. P. M. Krall, Kansas City.

"The American Medical Association, Its Purposes and Future"—(Lantern Slides)—Dr. Frank Billings, Chicago.

"Management and Treatment of Pneumonia from the Standpoint of the General Practitioner"—Dr. O. D. Sharpe, Neodesha. Discussion opened by Dr. A. C. Flack, Fredonia.

"A Few Remarks on Goiter"—Dr. R. C. Dugan, Ottawa. Discussion opened by Dr. Geo. M. Gray, Kansas City.

Thursday, May 8th, 9:00 a. m.

"Surgical Mumps"—Dr. R. B. Stewart, Topeka. Discussion opened by Dr. L. F. Barney, Kansas City.

"The Physician's Relations to Some Important Social Problems"—Dr. A. J. Hetherington, Mayfield. Discussion opened by Dr. M. W. Axtell, Argonia.

"Minor Eye Injuries"—Dr. J. F. Gsell, Wichita. Discussion opened by Dr. J. R. Scott, Ottawa.

"Dysthyroidism a Factor in Secondary Anaemia"—Dr. W. A. Baker, Leavenworth. Discussion opened by Dr. H. N. Tihen, Wichita.

"The Medical Officer in the Next War"—Major H. H. Smith, M. C. U. S. A. D. O. L., Kansas City.

"Fractures of the Humerus"—Dr. Willis C. Campbell, Memphis.

"Salvarsan in the Treatment of Pyelitis"—Dr. R. W. Hissem, Wichita. Discussion opened by Dr. A. D. Gray, Topeka.

"Local Anesthesia in Abdominal Surgery"—Dr. W. J. Gates, Kansas City. Discussion opened by Dr. C. C. Nesselrode, Kansas City.

"Treatment of Burns Including Skin Grafts"—Dr. Martin Hagan, Wichita. Discussion opened by Dr. John L. Evans, Wichita.

"Anomalies in the Separation of the Placenta"—Dr. Wm. H. Vogt, St. Louis.

"Mental Conflicts and Physical Symptoms"—Dr. M. S. Gregory, Dighton. Discussion opened by Dr. Karl A. Menninger, Topeka.

"Tobacco, Its Use and Abuse"—Dr. Frank L. Abbey, Newton. Discussion opened by Dr. Arch D. Jones, Wichita.

—————R—————

ANNUAL MEETING OF THE GOLDEN BELT MEDICAL SOCIETY

Pelletier's Tea Room, Mills Building, Topeka, April 3, 1924.

In the absence of the president and vice presidents, the meeting was called to order by Dr. J. D. Colt, Sr., the treasurer, at the solicitation of the secretary. The clinical program was begun immediately and was given as follows:

Eye Clinic—Drs. Williams and Boggs.
(a) Foreign body in the eye, treated.
(b) Foreign body in the eye, untreated.

Neuropathology Clinic—Dr. M. L. Perry.
(a) Spinal cord tumor. (b) Brain tumor.
(c) Encephalitis.

Skin Clinic—Dr. Homer Collins. (a) Blastomycosis. (b) Generalized acne. (c) Angioneurotic edema. (d) Erythema multiforme bulbosum.

Endocrine Clinic—Dr. C. F. Menninger.
(a) Diabetes mellitus. (b) Hypopituitarism. (c) Diabetes insipidus.

Surgical Clinic—Drs. Storrs and Hall.
(a) Extrauterine pregnancy. (b) Ulcer of the stomach. (c) Cancer of the stomach.

Urological Clinic—Dr. Arthur Gray.
(a) Diverticulum of urinary bladder with stone. (b) Multiple papilloma of bladder.
(c) Stone in urinary bladder.

Heart Clinic—Dr. J. G. Stewart. (a) "Congenital" heart disease. (b) Heart disease with tuberculosis.

Surgical Clinic—Drs. Bowen and Miller.
(a) Carcinomatous metastases. (b) Brain trauma and decompression.

Neuropsychiatric Clinic—Dr. Earl A. Menninger. (a) Syphilitic epilepsy. (b) Poliomyelitis. (c) Melancholia.

Surgical Clinic—Dr. W. M. Mills. (a) Peptic ulcer. (b) Peptic ulcer; two cases.

Syphilis Clinic—Dr. Earle G. Brown.
(a) Tertiary syphilis. (b) Hereditary syphilis; two cases.

The program was over by 5:30 and the formal session occupied the next thirty minutes. Promptly at 6:00 o'clock a five-course dinner was served. During the dinner the Washburn orchestra played. During the interim between selections by the

orchestra the business was transacted as follows:

A nominating committee consisting of Drs. Arthur Gray, J. D. Riddell and W. A. Carr made the following nominations for offices for the ensuing year which were elected by the unanimous vote of the society.

President—Karl A. Menninger, Topeka.

First Vice President—Theodore Kroesch, Enterprise.

Second Vice President—C. M. Jenney, Salina.

Secretary—J. D. Colt, Jr., Manhattan.

Treasurer—Russell Cave, Manhattan.

The following doctors made application for admission to membership: D. J. Moore, Idana; M. L. Perry, Topeka; Grant Meyer, Bern; Frank Boggs, Topeka; H. B. Talbot, Hoyt; A. H. Marshall, Topeka; Leroy Hawkins, Scranton; Richard O. Preston, Meriden; Tom O'Connor, Topeka.

A board of censors consisting of Doctors C. F. Menninger, J. D. Colt, Sr., and Benjamin Brunner was appointed by the president in the absence of the regular board of censors. These names were approved by the board of censors and then voted into membership by unanimous vote of the society under suspended rules.

The treasurer, Dr. J. D. Colt, Sr., read his annual report which, together with the check for the balance in the bank, was handed to the incoming treasurer, Dr. Cave.

Bills incurred by the secretary were allowed by vote of the society and placed in the hands of the incoming treasurer.

Minutes of the previous meeting were read and approved.

Manhattan representatives of the Riley County Society invited the Golden Belt to meet in Manhattan July 3rd.

A unanimous vote of thanks to the Shawnee County Society for entertainment was twice made.

Entertainment consisting in a black faced act from the Novelty Theater, a dozen or more selections by the Washburn male quartette and the distribution of favors in the way of a two-color pencil concluded the evening.

KARL A. MENNINGER, *Secretary*.

SOCIETIES

NORTHEAST KANSAS MEDICAL SOCIETY

The annual meeting of the Northeast Kansas Medical Society was held at Lawrence, Kan., Thursday, March 27, 1924. The meeting opened at the Elks' Club at 10:30 a. m. Dr. C. C. Nesselrode was

elected president and Dr. Earle G. Brown secretary. The following program was given:

"Some Problems of Tuberculosis"—Dr. James G. Stewart, Topeka.

"Appendicitis"—Dr. W. J. Gates, Kansas City.

"Restoration of the Pancreas"—Dr. C. F. Menninger, Topeka.

"Treatment of Congenital Syphilis."

"Spontaneous Movements of the Embryo"—Dr. H. C. Tracy, University of Kansas School of Medicine.

"Bacterial Anaphylaxis"—Dr. N. P. Sherwood, University of Kansas School of Medicine.

"Ethylene Anaesthesia"—Dr. O. O. Stotland, University of Kansas School of Medicine.

"Treatment of Earache"—Dr. L. B. Spake, Kansas City.

"Practical Application of Chloride Determination in Well Water"—Dr. E. G. Brown, Topeka.

"Some Factors Contributing To End Results in the Treatment of Hyperthyroidism"—Dr. C. C. Nesselrode, Kansas City.

"The Conservative Evaluation of Radium"—Dr. G. W. Jones, Kansas City.

Those attending the meeting were guests at luncheon of the Douglas County Medical Society.

WILSON COUNTY SOCIETY

No monthly meeting in February. The Wilson County Medical Society met at Fredonia March 10th, and after supper at the Loether Hotel, program was given in the Chamber of Commerce rooms.

Dr. Jacoby read a paper on "Intestinal Carcinoma (ileum) Associated With Landry's Paralysis," reciting case history. Patient operated, died one week later.

Dr. Butin read a paper on "Medical History." The paper was well received, this being the first along that line.

Dr. B. T. Crowley, D. V. S., Fredonia, read a splendid paper on "Rabies." This disease was thoroughly discussed by the Doctor. The paper was exceptionally well written and timely. The speaker, with the co-operation of our health officer, Dr. Young, has caused an extensive vaccination of dogs here, using one injection, which immunizes the dog for at least one year. This method is far superior to muzzling. The society voted to ask the editor of our State Journal to give this paper space in his column.

E. C. DUNCAN, Sec'y.

STAFFORD COUNTY

Society met in St. John March 12th, at 3:00 p. m. Members present: F. W. Tretbar, J. J. Tretbar, T. W. Scott, Stafford; R. E. Stivison, Hudson; F. E. Dargatz, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John; Dr. Martin, Cullison; Dr. Philips, Pratt, and Dr. Bock, Macksville were guests.

Dr. G. E. Martin read a paper on "Fractures of the Elbow in Children." The subject is of special interest to every general practitioner. The writer placed emphasis upon the importance of adjustment at the earliest possible moment for the reason that swelling of any consequence renders correct adjustment much more difficult if not impossible. He regards the X-ray as indispensable in every case where it is available. The position recommended is that of extreme flexion. Dressings may be removed after three to four weeks and gentle passive motion used. A sling should be worn two or three weeks longer, being gradually lengthened. Active motion is now recommended. Prognosis should be guarded and normal motion not to be expected under six to twelve months. The discussion elicited the suggestion that treatment by diathermy and radiant light would often hasten recovery.

It was a splendid paper on a practical subject. The next meeting will be held in St. John the second Wednesday in April when Dr. F. W. Tretbar will address the society on "Places of Interest I Have Visited in Europe," and Dr. C. S. Adams will read a paper on "Focal Infection."

MONTGOMERY COUNTY MEDICAL SOCIETY

There was a regular meeting of the Montgomery County Medical Society held in the basement of the Episcopal Church at Seventh and Elm, Coffeyville, Kansas, March 21, 1924. The program was as follows:

"Laboratory Diagnosis of Lues"—G. N. Watson, B. A., Independence.

"Heredo-Lues"—C. A. Thomas, M. D.

"Bone Syphilis"—(With Lantern slides)—M. Dickenson, M. D.

"Neuro-Syphilis"—C. H. Fortner, M. D.

"Modern Treatment of Syphilis"—H. J. Bagby, M. D.

J. A. PINKSTON, Secretary.

SUMNER COUNTY MEDICAL SOCIETY

The Sumner County Medical Society met Friday, April 4, at Community Park House

in Wellington, Kansas. The program was as follows:

President's Address—E. F. Clark, M.D.

"Nephritis Diagnosis, etc."—J. L. Calene, M. D.

"The Physician's Problems"—H. A. Vincent, M. D.

"Some Public Health Problems"—M. O. Nyberg, M.D., Secretary Kansas State Board of Health.

T. H. JAMIESON, Secretary.

—R—

Injection Difficulties.

Almost every physician, some time or other, has on his hands a patient with veins so small or inaccessible that to give an intravenous injection is difficult or quite impossible. This happens occasionally in treating syphilis, for instance.

Till now, physicians in such a situation have found themselves seriously handicapped, especially since the arsenicals most effective in that disease have been suitable for intravenous use only. To inject these drugs intramuscularly would not do. It therefore became necessary to go back to mercury in accordance with old established routine and thus to make the best of it, as we say.

So it was till the new drug, Sulpharsphenamine, came to light. This was produced in America for the first time at the Dermatological Research Laboratories, the Philadelphia branch of The Abbott Laboratories, Chicago. While effective as spirocheticide, Sulpharsphenamine appears also to have a wide margin of safety so far as the patient is concerned. Some of those who have investigated its practical value, assert that the drug is especially useful in neurosyphilis.

—R—

True and False Presystolic Murmurs.

Further data are given by William D. Reid, Newton, Mass., (Journal A. M. A., March 29, 1924), concerning the mechanism of the crescendo murmur, and to re-emphasize that there are two murmurs, one the so-called presystolic and the other properly termed presystolic, if one elects that terminology. Not all authorities today are satisfied with the term "presystolic" for the murmur of mitral stenosis. In 100 successive necropsies of medical cases, there were eight showing organic stenosis of the mitral valve, and but one of these was diagnosed in life. In none of the eight was any type of presystolic murmur noted. In two other patients a presystolic murmur

was recorded, but the necropsy disclosed no stenosis of the mitral orifice. The crescendo murmur ending in the first sound does not necessarily disappear when auricular fibrillation is present. It should be kept clearly in mind that there are two murmurs, one of rather rare occurrence and produced by contraction of the auricle, and the other, which is more common, due to the first part of ventricular systole. The latter murmur is due to a regurgitation of blood into the auricle. Confusing the true and the false presystolic murmurs leads to diagnostic errors.

—R—

Nonprotein Nitrogenous Constituents of Blood in Eclampsia and Allied Conditions.

The values for nonprotein nitrogen, urea and uric acid in the blood plasma of normal pregnant women, E. D. Plass, Detroit (Journal A. M. A., January 26, 1924), asserts, have a distinct tendency to fall in the lower range of normal. This is particularly true of the urea, in which exceptionally low concentrations are occasionally manifest, while the opposite tendency is sometimes apparent in the uric acid values at the end of labor. There are no characteristic changes in the concentrations of these substances during the toxemias of pregnancy, whether they are associated with convulsions or not. In many instances the serum or plasma findings are quite normal, while in other cases there is a moderate increase, which is more likely to effect the uric acid values, so that a moderate rise in the concentration of this nitrogenous end-product is quite common, but not invariable. Examination of the findings in cases of undoubted clinical nephritis fails to show any particular variation, which may be regarded as pathognomonic of the condition. It seems, therefore, that chemical examination of the blood for these constituents is quite useless as an index of the severity of the pathologic changes in eclampsia and its associated toxemia.

—R—

Obstetric Brachial Paralysis (Erb's Palsy).

Five cases are cited by Samuel W. Boorstein, New York (Journal A. M. A., March 15, 1924). He concludes that obstetric brachial paralysis is due to stretching or tearing of the cervical roots of the brachial plexus. It is almost always associated with a difficult labor; in many instances forceps having been used. The condition occurs in boys as frequently as in girls. The right side is more affected than the left. Affec-

tion of both arms is very infrequent. The upper arm type is due to injury of the suprascapular, and fifth and sixth cervical nerves. It is much more frequent than the lower arm type. The whole or lower arm type is due to injury of the entire plexus. Vertex presentation shows the larger percentage of occurrences of both types of cases. Improper management of the shoulder is responsible for many cases; hence they may be prevented by the obstetrician. If these cases are treated early and properly, one may expect in the mild cases a good recovery in three or four months. The more severe cases will require about six or seven months for a complete recovery. Nerve operations are indicated if no advance is made in four months. After that period, if sufficient improvement is noticed one may wait four months more, provided, of course, proper orthopedic treatments are continued. The shoulder should immediately be put up in a splint or brace to prevent stretching of the paralyzed muscles and contracture of the unopposed muscles. The support must be kept up for a very long time, eight or nine months, as deformities may occur. Of course, massage and exercises are begun early. Even in the whole or the lower type, one may try conservative treatments for a while and then resort to a plexus operation. The result is not so discouraging as some textbooks would lead us to believe. The deformity at the shoulder, viz., the adduction and internal rotation, can easily be corrected by a tenotomy. The pronation of the forearm can be corrected by a muscle transplantation. A patient suffering from this affection should be under proper observation at least till the age of 10 years, as slight deformity may present itself.

—R—

Sarcoma of Choroid.

Connie M. Guion and Conrad Berens, Jr., New York (Journal A. M. A., March 29, 1924), report a case of diabetes complicated by glaucoma which was caused by a melanosisarcoma of the choroid. The outstanding feature of this case as one of diabetes was the heavy content of diacetic acid and acetone and the persistent trace of sugar in the urine unchanged by starvation or diets, but always increased by an exacerbation of the severe pain in the eye. After the enucleation of the eye and the cessation of the pain, almost immediate disappearance of the sugar, acetone and the diacetic acid was striking.

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Ocular Phenomena In Brain Tumor With Especial Reference To Pituitary Tumors

W.G. GILLET, M.D., D. OPH., Wichita, Kan.

Read before the Midwest Academy of
Ophthalmology and Oto-Laryngology

From an ophthalmological standpoint tumors in the anterior part of the cranial cavity may be divided into two classes:

- (1) Those which affect the chiasm and neighboring structures, and
- (2) Those which affect the frontal lobe proper.

Class 1 embraces the following.

1. Tumors of the pituitary gland.
2. Tumors springing from embryonic remains of Rathke's diverticulum.
3. Tumors of the 3rd ventricle.
4. Syphilitic basal meningitis. (Gummatous.)
5. Tumors of the chiasm proper and its coverings.

In the above class the tumors of the pituitary gland are by far the most common, in fact tumors are found in this gland more frequently than in any other one place in the cranial cavity. Out of 468 verified brain tumors in Cushing's series, 27.3 per cent were of the pituitary gland. It therefore behooves the oculist to know well not only the ophthalmic findings but also the general symptoms. These tumors manifest themselves chiefly in two ways:

- (1) By glandular symptoms, and
- (2) By neighboring symptoms.

The glandular symptoms fall mainly under two headings:

1. Hyperpituitarism.
2. Hypopituitarism.

Hyperpituitarism is characterized by faulty functioning of the anterior lobe of the gland resulting in abnormalities in the growth of the bony framework of the body. That is, in gigantism if the process develops before the union of the epiphysis of the long bones and in acromegaly if the process develops after this union. In addition we find the skin greasy and moist, sex organs often enlarged, but sexual powers as a rule diminished. In women amenorrhea is common, glycosuria is frequent.

Hypopituitarism is characterized by faulty functioning of the posterior lobe which manifests itself by faulty metabolic processes, extreme adiposity, Frohlic's syndrome, female distribution of fat in the male, atrophy of the genitalia in the male, infantilism both skeletal and sexual, polyuria, high carbohydrate tolerance, etc.

The neighborhood symptoms are due to extension of the growth to the neighboring structures, giving rise to: (1) Bitemporal headaches, due to distention of the glandular envelope. (2) Visual defects; these are, reduced visual acuity not improved by glasses, perimetric deviations such as bitemporal hemianopsia, quadrant hemianopsia, homonymous hemianopsia, scotomas, enlargement of the blind spot, and changes in the color fields corresponding to the above form hemianopsias but which usually are present earlier than the form defects. As regards the fundus findings, choked disc is not common. The characteristic findings as pointed out by Benedict, and substantiated by Lillie and others, is pallor of the optic disc, waxy white in type, without loss of substance. The pallor looks like atrophy but there is no loss of substance, no cupping. Vision returns when the pressure is relieved and true atrophy does not exist unless the pressure has existed for a long time. Other uncommon neighborhood signs are bulging of the upper naso-pharynx with an adenomatous looking mass, mucous discharge from the naso-pharynx and epistaxis. These latter symptoms have led to useless naso-pharyngeal surgery. Halucinations of taste and smell due to involvement of the tip of the temporal lobe have been observed. The 3rd, 4th and 6th nerves may be, but are rarely involved. The last and most important neighborhood symptom is the deformation of the sella.

The anterior lobe of the pituitary gland is formed from a pouch which buds off from the roof of the buccopharyngeal cavity. By the subsequent formation of the sphenoidal bone the lumen of this pouch is obliterated, but in some cases small embryonic remains are found and in rare

instances tumors spring from this tissue. As they grow they produce symptoms and signs not unlike those given above, but are diagnosed usually at operation or autopsy. The fundus findings and optic nerve findings are similar to pituitary tumors.

Tumors of the 3rd ventricle form a small series of brain tumors in which there is almost always produced an early hydrocephalus due to extension of the growth into the foramen of Monro or the aqueduct of Sylvius. It forms an excellent example of a tumor which produces a choked disc and because of pressure on the chiasm may also produce homonymous perimetric defects in the visual fields. Because of pressure on the cavernous sinus protrusion of one or both eyes has been observed. These tumors are extremely hard to diagnose because the increased intracranial pressure produces cerebellar symptoms which make the symptom complex a tangled one.

Gummatous tumors affecting the chiasm may produce any of the various perimetric defects, depending, of course, on its location, but diagnosis is not rendered difficult because as a rule there are no neighborhood or glandular symptoms, no bony defects, the Wassermann is positive and the process subsides on specific treatment.

Tumors of the chiasm proper are seldom diagnosed except by exclusion.

The second class of tumors found in the anterior part of the cranial cavity are those those which affect the frontal lobe proper. These are usually accompanied with mental defects or epileptic attacks. If the motor cortex is involved the typical Jacksonian type may be present. If the motor tracts are affected below the cortex we find paralysis on the opposite side without epilepsy but as the tumor spreads to the cortex these attacks usually develop. If the growth affects Broca's area, motor aphasia develops which aids greatly in the diagnosis. As a rule the eye findings are uncommon in these tumors but choked disc is present in 50 per cent of the cases and may appear only on one side. Then too, the tumor may press downward on the optic tract in such a manner as to cause field defects. Kennedy found central scotoma without ophthalmoscopic changes in three cases.

Tumors of the temporal lobe may reach a large size without producing any symptoms whatever. Many of these tumors, however, as pointed out by Hughlings Jackson, produce a mental condition simulating a "dreamy state." Lesions of the left su-

perior temporal convolution produce sensory aphasia. In the posterior two-thirds of this convolution, on both sides, are the cortical centers for hearing, and irritative lesions here produce tinnitus or deafness on the opposite side. The cortical centers for taste and smell are located in the tip of the temporal lobe. Certain of the optic radiations also pass through this lobe and some extend well forward along the wall of the lateral ventricle. Now, lesions affecting these radiations would produce homonymous quadrant defects in the visual fields and such defects associated with any of the above named symptoms would be very suggestive of a temporal lobe tumor. There are no other visual defects here except as they become manifest due to increased intracranial pressure.

Tumors of the parietal lobe affecting the ascending or postcentral convolution produce sensory disturbances on the opposite side of the body. This convolution is in such close relation to the precentral convolution that motor paralysis or Jacksonian fits may be associated. Other sensations affected by tumors of the parietal lobe are loss of joint sensation, inability to recognize differences in weights, inability to recognize position of the affected limb in space, etc. Lesions of the left angular gyrus produce word blindness. The optic radiations come in close proximity to this center and so a tumor of much size so situated produces word blindness with right homonymous hemianopsia. Word blindness with hemanesthesia and word blindness with opposite side paralysis have been reported. Choked disc present in 85 per cent of cases.

Growths situated in the central or basal ganglion region are especially interesting from an ophthalmological standpoint. Progressive motor, sensory or hemianopic symptoms may be present depending on the location of the tumor. Severe paroxysmal pain and subjective sensations of heat and cold referred to the contralateral limbs, accompanied by objective sensory disturbances on that side are most suggestive of thalamic lesions. The objective sensory disturbance for tactile anesthesia is usually accompanied by extreme hypersensitivity to painful and thermal stimuli. Motor paralysis is not present in true thalamic lesions, but if the growth extends to either side the pyramidal tracts become involved. Then too, the visual fibers end in the pulvinar of the thalamus and the external geniculate body, and one can readily understand

how lesions here could produce homonymous hemianopsia along with the above symptoms.

Tumors of the corpora quadrigemina are very rare, but when present, the clinical features, notably the ocular palsies, render their recognition easy. These palsies are constant and are bilateral incomplete and a symmetrical palsies of the 3rd nerve. Double ptosis with greater or less involvement of all the muscles supplied by this nerve. The 6th is seldom involved. Thalamic symptoms, hemianopsias and cerebellar symptoms are often present because of the neighborhood extensions of the growth. Early choked disc is present in 100 per cent of these tumors.

Tumors of the occipital lobe located in the region of the cuneus, produce visual defects usually hemianopsias, homonymous in type, and located by the Wernicke's pupillary reaction if such can be relied upon. Because of their location cerebellar symptoms are soon observed. If the tumor lies in the cortex of this lobe we may have Jacksonian convulsions starting with visual aura, the patient seeing colors, flashing lights, stars, etc. It is important to know on which side the patient sees these objects. Just before the optic fibers pass into the primary visual centers, they pass through Wernicke's zone and here they come in close contact with fibers from the olfactory and gustatory centers. A lesion here gives symptoms referable to all three of these centers.

Growths of the cerebellum proper produce cerebellar ataxia, cerebellar hypotonia, rotatory vertigo and nystagmus before the cranial nerve are involved while usually just the opposite is true of growths which arise in the posterior fossa but outside the cerebellum. However, the first nerves to be involved as the process advances are the 4th and 6th. Choked disc is an early and constant finding.

Cerebellopontine angle tumors may roughly be classified under two headings: (1) Those which according to Cushing start with 8th nerve symptoms, that is acoustic tumors, and, (2) those whose initial symptoms are referable to other pontine nerves with or without cerebellar symptoms. In the first group the auditory symptoms are always primary, starting with tinnitus of one form or another followed by labyrinthine manifestations. Next in line we find the severe occipito-frontal pain, next the cerebellar symptoms, ataxia, nystagmus, etc., next the other pontine

nerve involvement, and of these the 5th is almost always the first to be involved, in fact, it may become apparent before the cerebellar symptoms present themselves. Its involvement is made manifest by loss of the corneal reflex. After this the 7th, 6th and other nerves become affected.

The second group has almost this exact chain of symptoms except that some one of the other pontine nerves is first to be involved. In either group if the tip of the occipital lobe is pressed upon we may have homonymous visual field defects. The 3rd nerve is seldom affected in either group and choked disc is present in 80 to 90 per cent of the cases.

Having covered in a rough way the general symptoms found in the various lobes and fossae we may direct our attention to some of the differential points regarding the eye symptoms. A pale optic nerve without loss of substance is probably the most outstanding point in tumors of the pituitary gland and should support a lesion around the chiasm, this is especially true if accompanied by perimetric findings without eye muscle palsies. A pale optic nerve in a patient giving a negative Wassermann and indefinite causative symptoms should always lead to an x-ray of the sella even though there are no glandular or neighborhood symptoms. Choked disc from tumor in the anterior fossa is present in something over 50 per cent of the cases and these are almost all from tumors in the frontal lobe proper and are associated with frontal lobe symptoms with few, if any other eye findings. Tumors in the frontal lobe occasionally resemble tumors in the posterior fossa and when the pressure in the cranial cavity is high the eye findings may be similar and very confusing. Choked disc is present in 85 per cent of parietal lobe tumors, but the only other eye findings which can aid much in the diagnosis here would be a word blindness with right homonymous hemianopsia. In such a case the left angular gyrus would be the sight of the lesion. Word blindness with any parietal symptoms would of course be suggestive.

Tumors in the basal ganglion region should not be hard to diagnose—hemianopsias with thalamic symptoms, 3rd nerve paralysis with the sixth unaffected and without cerebellar symptoms, but with early choked disc is characteristic.

Quadrigeminal tumors give 100 per cent choked disc with bilateral paralysis of the 3rd nerve, double ptosis, without involve-

ment of the 6th. If the tumor extends forward the visual fields become affected.

Tumors in the posterior fossa show choked disc early and in about 90 per cent of the cases. The 6th and 4th are often involved but not the 3rd. Corneal anesthesia from the involvement of the 5th may be an early symptom. No visual field defects are found unless the occipital lobe is pressed upon. Nystagmus in suspected brain tumor cases is an important symptom. If it is purely vertical it is due to involvement of the vermis. If purely lateral, it is probably due to involvement of one of the lateral lobes of the cerebellum either by the tumor being primary in the lobe or being secondarily pressed upon by the growth. The nystagmus is usually more marked when looking to the affected side. Rarely does one find a mixed rotary and horizontal nystagmus in abscess or tumor of the cerebellum; when it does occur, it is not due to the lesion in the cerebellum proper, but to pressure on the root of the vestibular branch of the eighth nerve or its nuclei.

—R—

Pyelitis

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Delivered to Wyandotte County Medical Society, March 4, 1924.

Pyelitis is an inflammation of the pelvis and calices of the kidney in contradistinction to pyo-nephrosis, but this is simply a didactic, pathological distinction and has no real value clinically except in the extremes.

The portal of entry of the bacteria is most usually by way of the blood stream, but there is also an entrance by way of the lymphatics. According to Stahr, the lymphatics of the kidney capsule connect with the deep lymphatics of the kidney. Franche, in his study of the large bowel lymphatics, by the aid of methylene blue, has proven their connection with the lymphatics of the kidney capsule.

As early as 1893, the anti-peristaltic movement along the ureter from the bladder was known. Kretschmer has, by the use of the x-ray and opaque solutions in the bladder, proven that regurgitant movements do take place in the normal bladder as well as in the pathological. This opens another portal of infection of the kidney in the many obstructing infectious conditions of the bladder, prostrate and posterior urethra.

The etiology of pyelitis shows that it occurs more frequently in women than in

men, even without considering the pyelitis of pregnancy. Menstruation and coitus probably do cause urologic disease in the aggravation of old conditions or the lighting up of old healed processes. Menstrual congestion decreases the vitality of the tissues and gives the bacteria an opportunity to produce disease. As we all know, there is an increase of symptoms in those women with cystitis at the time of menstruation.

The predisposing factors of pyelitis are as follows:

1. Constipation.
2. Pregnancy.
3. Focal Infections: Tonsils, teeth, vesicles, tubes, nasal sinus, rectal.
4. Influenza.
5. Exanthematous Disease.
6. Physical Factors.

Constipation from any cause, be it post operative, of pregnancy, ptosis or what not, causes a stasis with an increase of the number of colon bacilli in the bowel and an increased possibility, both by reason of the stasis and the number of bacteria, of a haematogenous and lymphogenous transference to the kidney pelvis. The number of organisms then passing through the kidney only make it a question of time until there is a lowered resistance in the part and an attack made on the pelvis by the colon bacillus. We have found a number of cases suffering from a variety of bowel conditions, constipation of course predominating, but three of them have been to date, cases of intractable pyelitis, as a result of a mucous colitis.

In pregnancy we have a number of ideal conditions that predispose to a pyelitis. First, the mother is carrying an excess of the normal load for the kidney as a result of the by-products of the foetus, causing a decided overwork of that kidney. Second, there is from early in pregnancy an engorgement in the entire pelvic abdomen with a slowing of the blood stream. As the uterus gets larger there is a misplacement of the bladder and pressure upon it causes an irritation. Either from the bladder misplacement downward causing a pull on the ureters or from actual contact, there is a pressure on the ureters at the pelvic brim causing a stricture of the ureter, which in turn means a back pressure on the kidney and this means a hydronephrosis of a varying degree. Hydronephrosis of course is an ideal factor for predisposing to infection. There is always a stasis or constipation accompanying pregnancy which not only adds another load to the

overworked kidney but also increases the organism content in the bowel.

One of the writers, whose name at this time has slipped my mind, has called attention to the fact that in pregnant women the bladder does not entirely empty itself and almost without variance becomes infected. This allows for increased growth and increased possibility of kidney involvement.

It is also interesting to note that a number of cases of pyelitis give a history of previous attacks which have persisted intermittently since childhood. This allows us to believe that they are simply a re-lighting of cases of the pyelitis of childhood.

Bad tonsils, pyorrhea, abscessed teeth, vesiculitis, bad tubes and nasal sinus conditions can all be classed under the heading of focal infection. It matters not the source, they can and often do cause a kidney involvement.

Influenza, exanthematous disease or in fact any highly acute infection will cause a pyelitis if not closely guarded against. It may pass unnoticed only to recur at some future date.

Physical factors play an important role in cases of pyelitis. In certain cases they are in reality acting as a distinct mechanical obstruction and a relief of this obstruction, such as a removal of adhesions, new growths or parturition, will allow for an almost immediate relief. Normal kidneys may become infected, but there are certain structural or functional factors which predispose to bacterial implantation and which probably ante-date the infection onset. Differentiation between a cause and effect is sometimes hard. Peri-ureteral and peri-nephritic abscesses may cause adhesion sacculations. Occasionally congenital malformations predispose to, and cause a pyelitis that persists regardless of the type of treatment administered, unless the predisposing cause is found by pyelography and remedied.

DIAGNOSIS.

Pyelo-ureterograms have done more than any other procedure including ureteral catheterization to obviate exploratory operation and to give information as to diagnosis, including physical cause, treatment required, and possible prognosis. They locate definitely the position of the kidney and ureter, showing their shape, size, caliber, complicating papilloma, kinks, pressure strictures and congenital abnormalities. The procedure is simple and usually painless. Use a lead infiltrated

catheter up to the kidney and inject with a 15 per cent sodium iodide or bromide or thorium as suggested by Young and Burns. Exposures should be made with the patient lying down and standing, also with the catheter withdrawn to nearly the mouth of the ureter. There is little or no danger to the procedure if there is not too much pressure exerted on the kidney through dilating the pelvis. There are reported a few cases of bilateral anuria and death following the procedure, but this I think can be eliminated by care and the value received far overbalances the possible evil.

Assuming the normal pelvis will hold approximately 5 c.c., we can use a Luer syringe, if we also use care, but it is advised that the solution be put in by use of a funnel and gravity pressure. Bilateral collection and microscopical examination of the urine should be understood without mention. It is not, in the opinion of the author, a justifiable procedure to arbitrarily catheterize ureters, particularly, in the face of an active cystitis. We believe that a pyelitis of any length of standing at all can be diagnosed from the condition surrounding the ureter and that it is not necessary to catheterize both sides as a rule.

TREATMENT

First, in our opinion, comes the fluid intake. This should be in the form of water and should be from four to six quarts a day in acute conditions and slightly less in chronic. Next comes alkalization; we are using the citrocarbonate, a less irritating method of taking the bicarbonate of soda. In infants the bicarbonate is given by mouth and rectum during the alkalization. This treatment is carried on for about a week or ten days and then the amounts of water are cut down and the urotropin and sodium acid phosphate are given in the more concentrated urine for an equal length of time in doses of about 40 grains a day. This alternating treatment is repeated as is found necessary. In acute conditions, the milk, Aolan, has been used but its results have not been sufficiently bright to advise its indiscriminate use, although we do feel that it has its place in the treatment of acute conditions of the kidney.

Pelvic lavage is without a doubt one of the best methods of treatment as by its use we may place our medicine in direct contact with the invaded tissue. The medicine of choice is usually a 2 per cent silver nitrate, as it acts best on the colon bacillus, the organism that usually predominates,

although we vary the treatment by using the mercurochrome of Young. There are two methods of use of the medication in the pelvis. One is by lavage, which is done by using a catheter smaller than the ureter and allowing the fluid to run into the kidney and back out around the catheter into the bladder, to be emptied from there by a retained catheter. The other is by instillation, using a Luer syringe and needle and slowly injecting the medication. The catheter tip is held up allowing the medication to be retained a definite length of time and then the catheter is removed.

We believe that a part of the treatment just as necessary as the ones mentioned is that of eliminating focal infections. It matters not to what particular predisposing factor the history points, if there are also bad teeth, tonsils, tubes or any of the focal infections, these should be removed before or early in the treatment. If there is some outside force slowing down or obstructing the stream in the ureter, this should be attended to if a permanent cure is to be expected. A kidney with its resistance lowered by preceding attacks must have extremely good surroundings if we expect it to remain good.

Do not be too zealous to operate on kidneys even though we find pus and blood in the urine. It is surprising how much good can be done in kidneys even with a great amount of pathology if put on a competent and consistent treatment. A kidney taken out has nothing to take its place and only places its work in addition on the other. We must not forget that the condition causing an attack on the first kidney may also attack the second after the first is gone; so I shall repeat, make all the tests for functionation and complete diagnosis possible before taking out a kidney.

I do not think I should close without first touching on the subject of pyelitis of infancy.

In the treatment of infants the conditions to be thought of and eliminated in obscure cases of fever, are otitis media, sinusitis, early pneumonia and pyelitis. The first three have definite symptoms and signs while the last may have as its only symptom, a frequency. The frequency may be of such a mild character, even after bladder infection, as to be overlooked. There is an especially common habit of calling this a bowel disturbance until the case has progressed to a quite unnecessary extent. Fever without discoverable cause should always excite a suspicion of pye-

litis. An unduly high or prolonged fever following any of the other infections or exanthematous conditions should call for a diagnosis.

The treatment is as in the adult; water in quantities and complete alkalization by potassium citrate or citrocarbonate, followed by urotropin and sodium acid phosphate and less water.

—R—

The Problem of Sterility in the Female from Various Aspects

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Read at the Meeting of the Medical Society of City and County of Denver, March 18, 1924.

Almost invariably when a couple realizes that its union remains childless the family physician is the first one to be consulted. In my experience, only too often, the investigation of the complaint receives but cursory and superficial attention. A little study and care should enable the general practitioner to determine with some degree of certainty what the patient's chances of conceiving are. The object of presenting this paper tonight is to give a short outline of the present stand of the subject of sterility, and in particular, to emphasize that the so-called "mechanical" theory of sterility has lost in importance.

VARIETIES.

Sterility may be *absolute and primary* as in conditions of aplasia (uterus rudimentarius solidus for an extreme example), or *absolute and secondary*, as in "one child" sterility where the tubes are closed post-partum by gonorrheal or septic inflammation.

Relative sterility of various types are met with:

1. *Physiological* sterility exists before puberty, not infrequently during lactation, and always after the menopause.

2. Recent studies have made it not unlikely that a *biological* sterility, due to the formation of spermolysins and spermatotoxin may result from the penetration of spermatozoa through the vaginal and uterine mucosae and their destruction by the tissue cells.¹ Some cases of impregnation following prolonged abstinence may thus be explained.

3. A *low threshold* of fertility due to poor conditions for nidation in the female and low vitality of the spermatozoa in the male accounts for the puzzling cases, where remating with different partners may be followed by fertility.

4. Both *congenital* and *acquired* relative sterility is common, as shown by fetalism

or infantilism with various degrees of hypoplasia. Some of these patients, because of incalculable changes in hygiene, diet, sex life, etc., may later become fertile.

The *sine qua non* for fertility presupposes the conjugation of active sperm with a ripe ovum. Facility for embedding must be supplied, but the human ovum appears to have great powers of penetration and fixation as evidenced by the frequency of extrauterine nidation (1 in 202 pregnancies, Schumann.²) The soil for embedding is prepared by the chemical action of the corpus luteum, which, however, in the human being, is no longer essential beyond the fourth week of gestation. Any artificial, mechanical, chemical or other hindrances interposed in the path of the two sex cells reduce the possibility or likelihood of fertilization according to the efficacy of the obstacle.

PATHOLOGY.

In order to comprehend sterility, the pathology of this condition must be understood.

1. *Mechanical* influences were formerly much emphasized and overrated. The classical case where impregnation resulted in spite of the fact that the male elements, because of obliteration of the vagina, had to traverse urethra, infected bladder and vesico-uterine fistula, and the frequent example where deposition of the semen on the vulva causes impregnation, although the hymen remains intact, sufficiently prove this. (a) However, at the *vulva*, imperforate or even unruptured hymen and vaginismus should be considered as obstacles. Vaginal stenoses, septa and bands may also prove hindrances. (b) *Cervical "stenoses"* (?) so-called are not mechanical bars. The cervical mucous plug, especially if infection is present, may prove a chemical obstacle, but the "antiflexion and stenosis," so frequently referred to, is mainly an evidence of hypoplasia. I have seen only three cases of true cervical stenosis and in each of these hematometra had developed. (c) *Uterine tumors* such as polyps and fibroids reduce fertility but are far from absolute bars to conception. Cervical cancer is encountered during pregnancy but no corporeal cancer has ever permitted fertilization to occur. (d) In the *fallopian tubes*, kinks, diverticula, stenoses reduce the chances of intrauterine pregnancy and increase the possibility of tubal gestation. Severe inflammations, followed by pyo and hydro-salpinx and closure of the abdominal ostia, produce absolute

sterility. (e) Adhesions, encapsulating the *ovaries* completely, prohibit fertilization. Separation of the ovaries from the fimbria ovarica by cysts or other tumors greatly reduces the likelihood of impregnation. Yet minute rests of ovarian tissue scattered on the surface of a dermoid cyst have sufficed to preserve fertility. (f) A small amount of *peritoneal fluid* is physiological in the pelvis (Novak³), but ascites (tuberulous, carcinomatous, chylous) may prevent impregnation by washing away the ovum.

2. *Chemical* causes often produce sterility. (a) Unfavorable *vaginal secretions* (for we now know that the vaginal walls transude fluid) by their alkalinity, their contents of a large number of infective and contaminating bacterial organisms, may kill the spermatozoa in the retrocervical seminal pool. The three degrees of contamination, as arbitrarily laid down by Loeser,⁴ are of aid in determining this. (b) The *infective cervical plug*, composed of stringy mucus, contaminated with bacteria, and containing innumerable pus cells, is probably the most frequent and potent single factor in cases of secondary, acquired sterility, particularly in those in whom treatment proves efficacious. It is seen most often after instrumental infections, in gonorrhea, and both post abortum and postpartum and the condition may persist for years.

3. *General* causes include (a) *congenital* and *acquired subnormality* such as aplasia, fetalism, infantilism, which may be limited to the organs of reproduction, but more often affects the entire body, especially the secondary sex characters, the bones, the circulatory apparatus and the resistance to harmful influences. (b) *Diseases such as syphilis, chronic alcoholism, and obesity* considerably reduce fertility. *Serious endocrine disturbances*, I may instance acromegaly, Addison's disease, pituitary obesity, etc., reduce fertility almost to the vanishing point, mainly by abolishing ovulation.⁵

When can we say that a couple is sterile? A commonly accepted period is three years of conjugal life, during which no contraceptives were used. This is a fair rule to observe unless the wife is beyond forty years of age and hence the time factor becomes more urgent.

The symptoms of sterility are non-existent except for the absence of impregnation. It is true that in many instances dysmenorrhea, amenorrhea or oligomenorrhea, dyspareunia, frigidity, vaginal discharge, in

fact one of every symptom referable to the pelvis and abdomen are complained of. But no symptoms definitely pathognomonic of sterility can be determined.

DIAGNOSIS.

(1) A careful *history* of both partners should tactfully elicit the presence or absence of previous gonorrheal infection. Women, if infected with gonorrhea, rarely conceive. Postabortive infection, especially if the abortion was induced, often produces closure of the tubes. Only too frequently we hear the story that "when I was first married I did not want to have a child at once, so I had a miscarriage brought on. Now I would give anything to have a baby." But the irreparable damage has been done.

(2) *Physical examination* of the wife will show whether any of the factors mentioned under the heading of pathology (mechanical, chemical or general) are demonstrable. The weight, development of secondary sex characters (breasts, hair distribution, type of pelvis), development of the internal pelvic organs, presence of gross abnormalities, (tumors, exudates), evidence of infection bartholinian, skenes or cervical), must all be determined. Marked retroflexion of the uterus may be of some significance. The florid, hirsute male types with large clitoris, congested vulva and cervix, neuter pelvic conformation, big soft uterus and short sacrouterine ligaments are proverbially infertile. The same holds true as well of pale, flabby, infantile women with rudimentary breasts, small vulva, narrow short antiflexed uterus, with long conical cervix and narrow vaginal fornices. Exceptions to the rule are occasionally met with.

In every instance the reaction of the vagina (alkaline or acid), the predominance of the Doederlein bacillus, or its crowding out by other organisms, should be determined from the vaginal spread. Even in the presence of gross abnormalities it is well to examine the male.

(3) *Examination of the sperm.* A condom specimen examined within two hours and kept at body heat (in the bodice of the wife) will definitely show whether azospermia, oligospermia or necrospermia preclude or make impregnation unlikely. Refusal on the male's part to submit to such examination is almost proof positive of his knowledge of serious disease or deficiency.

(4) Further tests include the postcoital test of the *lacuna cervicis* and of the cervical canal. Within forty minutes of co-

tus, after introduction of a speculum, it is easy to remove, by means of a pipette, sufficient fluid from the posterior fornix to examine on a warmed slide. Active, numerous spermatozoa should be present. A further test may be made with a Bier's suction cup which draws down the cervical mucous plug. When diluted with a few drops of normal salt solution from 4 to 16 fully motile spermatozoa in each field, show normal condition (Cary.⁶) I have never attempted to look for spermatozoa at the uterine fundus as suggested by Reynolds. Only where careful investigation has shown a fully potent husband, absence of obstructive factors in vagina and cervix, no signs of active or even chronic cervical, tubal or peritoneal infection, do I attempt to perform the Rubin insufflation test to demonstrate the permeability of the tubes. The test, as simplified, requires only a 15 c.c. glass syringe, a mercury or spring manometer, the Rubin intra-uterine catheter and pressure rubber tubing. Pressures of 200 millimeters of mercury may be accepted as evidence of impermeability, using 15 c.c. of air with each trial and repeating not more than 3 or 4 times. Even with these small quantities, pain in the shoulder may be complained of when the tubes are open. The test should be used sparingly, the indications and contraindications should be carefully observed, and rigid asepsis must be practiced.⁷

THERAPY.

Almost without exception non-operative measures should be first resorted to. This does not signify *repeated cervical dilation practiced in the office*—a most useless, abominable and harmful practice!

Where no recognizable abnormalities require correction, careful directions as to reduction diet in the obese,⁸ roborant hygienic measures and overfeeding in the underweight and flabby should be advised. Abstinence from coitus for two months is worth a trial. Relations immediately before and after the period may prove effective. Elevation of the hips *sub* and *post coitu* should be tried where the fornices are shallow. Weak bicarbonate douches immediately before coitus are of use occasionally.

A movable retroflexion should be corrected and kept in place with a suitable pessary. Immediate conception not infrequently follows.

All infections of the bartholinian glands, skene's ducts and cervix should be treated and cured. Very occasionally a single

treatment, consisting of removal of the muco-pudulent cervical plug and topical applications to the cervical mucosa, is followed by immediate impregnation. More commonly even prolonged treatment eventually proves useless, because the antecedent acute infection has obliterated the abdominal ostia of the tube. I have found mercurochrome in 2 per cent solution, with occasional treatments with 5 per cent silver nitrate most satisfactory in the cervical canal. Where the mucus is very stringy, application of the Bier suction cup is of value.⁹

For intractable vaginal discharge, alkaline in reaction and showing many varieties of bacteria, mercurochrome, in aqueous solution, resorcin in coco-butter used as a vaginal suppository and powder insufflation with Kaolin or Fuller's earth may prove curative.

If any of these measures are to prove effective, positive results should be noted within a few weeks or months. Indefinitely prolonged treatments are not indicated.

OPERATIVE THERAPY.

A number of operative interventions have been employed. The great majority are based upon the doubtful theory of "cervical stenosis." The not infrequent successes of some of these operations—especially of the Dudley trachelorrhaphy—appears to me to be due to the drainage of the cervical canal. Amputation of the cervix rarely proves effective, and, if successful, may engender dystocia.

Curettages are almost always harmful, and, with very few exceptions, never beneficial. Cervical dilations and stem pessaries are likewise harmful.

Alexander's operation, of shortening the round ligaments for movable retroflexion, may be indicated if the patient is unable to or refuses to wear a pessary.

Salpingostomy, with formation of a new abdominal ostium, has proved most disappointing. The failures are probably due to immediate resealing of the opening by new formed adhesions. I refuse to open the abdomen solely for such tubal plastic work, but occasionally perform the operation during the course of a laparotomy done for other indications. Cullen reports a successful implantation of the ampular end of the tube into the uterine fundus. The rare and doubtful cases of ovarian homotransplantation, followed by pregnancy, require mere mention.

In case of vaginismus, imperforate hy-

men, vaginal bands or septa, appropriate operations are indicated.

Before operation is resorted to, the patency of the tubes should be determined.

Artificial insemination may be tried where the male is afflicted with impotentia coeundi, but not with impotentia generandi. The procedure is abhorrent to most patients, it has produced severe tubal infections, and few successes are on record.

The *prognosis* is most unfavorable in patients over forty years of age married for long periods of time. It is hopeless where the male partner is impotent. A clear history of gonorrhea or well marked residua of gonorrhea, together with a history of pelvic peritonitis, gives an almost hopeless outlook.

Functional sterilities give an uncertain but fair prospect of pregnancy. Wide spread and well marked symptoms of infantilism are of bad omen.

In every case the evidence *pro* and *con* must be carefully weighed and balanced. In the fewest instances is it permissible to give an unequivocal prognosis, as both pleasant and unpleasant surprises are the rule rather than the exception.

FOOTNOTES

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6. Cary, Am. J. Gyn. & Obst. 1921, 2:
7. Curtis, Trans. Am. Gyn. Soc. 1923, 48: 221.; has reported three deaths following insufflation.
8. A basal metabolism test is of service in showing whether the thyroid gland is functioning normally.
9. The mucus can be removed with ease by inserting a sterile, moistened, cotton-wrapped applicator which has been dipped in powdered sodium bicarbonate, into the cervical canal, and leaving it in situ for a few minutes.

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The Prussian Bureau of Vital Statistics says that before the World War, for six years, the average number of boy babies to every one hundred girl babies was 106.2. In 1916—107.21; in 1917 to 107.40; in 1918 to 107.63 and in 1919 to 108.03. This is nature's way of preserving her equilibrium. The necessity for this is understandable. It is to keep the girls from overcrowding. But how the cards are manipulated to get the result is the conundrum.

Rabies

B. T. CROWLEY, D. V. S., Fredonia.

Read before the Wilson County Medical Society,
March 10, 1924.

Rabies is an acute and, almost without exception, fatal infectious disease. The clinical picture of which is characterized by disturbed consciousness, increased nerve irritability, and subsequent paralysis.

It is one of the oldest known diseases of animals and has been described by such early writers as Hippocrates, while allusions to it are found in the works of Virgil, Horace and Ovid.

The first outbreak in the United States was reported from Boston in 1768, later it appeared in Philadelphia and adjacent parts of the country and has gradually become widely spread into all sections of the United States.

All animals, both wild and domesticated are affected by the disease, as well as rodents; also poultry, pigeons and birds, though the latter are possibly less susceptible than animals.

The infecting organism of rabies is a virus and is filterable, and ultra-microscopic. It seems to grow or multiply only within certain tissues of the body. All attempts to grow it artificially have failed. It is found chiefly in the spinal cord and central nervous system of rabid animals; also in the salivary glands and their secretion, and sometimes in other glands of similar structure, as the lachrymal and mammary.

In 1903 Negri discovered the presence of specific bodies which have been termed *neurocytes hydrophobia*, or more commonly, Negri bodies, in various parts of the central nervous system. There is no doubt that these bodies are characteristic of the disease. The determination of them in the brain of a suspected animal is now considered diagnostic of the disease.

Natural infection is brought about in the majority of cases by the bite of a rabid animal, whereby the virulent saliva is inoculated through its wound into the subcutaneous tissues. In rare occasions the infection has been introduced by licking of wounds or skin abrasions. The saliva is most virulent immediately after the onset of the disease, and in its further course, but it is also infectious, though perhaps in a lesser degree, for a few days before the appearance of the symptoms of the disease.

Danger from a bite depends upon the

virulence of the saliva, size and depth of the wound, and in the number of nerves in the wounded part. Large wounds offer large surfaces for absorption, and from small deep wounds the virus once entered is removed with difficulty. From small superficial wounds hemorrhage may wash away the infection. Hence, bites of cats, dogs, and other carnivorous animals are apt to be more dangerous than those of herbivorous animals.

The virus be it ever so virulent and concentrated cannot penetrate the unbroken skin, though there is a possibility of infection through the uninjured mucous membranes.

There is no great difference in the susceptibility to the disease among mammals. While it is observed most frequently in dogs, cats and wild carnivorous animals, this may be explained by the mode of living, their manner of commingling, and by a temperament favorable to mutual infection found in those animals.

Breed, sex, extreme hunger or thirst, extreme heat or cold, or other devitalizing influences, have no effect on the susceptibility of an animal. Age is a factor, in so far as the period of incubation is apt to be short in young animals.

That it is necessary in order to produce rabies from bites or natural infection, that the virus come in contact with a nerve as it is by way of nerve tracts that it reaches the central nervous system, has been proven experimentally. Upon inoculation of virus into the nerves of the hip of a rabbit the paralysis will first appear in that limb. If a nerve connecting an extremity with the spinal cord be severed the subsequent injection of virus into this part will not produce the disease. This fact has much influence on the period of incubation as it must follow that other influences being equal, such as the age of the animal, and the virulence of the virus, the period of incubation will be increased or diminished in accordance with the distance between the point of infection and the central nervous system. For this reason, bites about the head or face are particularly dangerous.

The period of incubation varies considerably. The minimum time required for development of the disease from natural infection is about twelve to fifteen days, while the maximum may be one or more months or even a year. This variation in the incubation period helps very much to perpetuate the disease in a community,

even though ordinary quarantine orders are strictly adhered to.

The symptoms of rabies are similar in the various species of animals, but are modified somewhat by the individual temperament and the physical structure of the animal. For description here the dog is used.

Rabies is generally divided into two forms, the furious and the dumb form. The disease is the same in each form, but due to the part of the brain affected or the acuteness of the attack or both, paralysis appears early in the dumb form and dogs thus affected are less dangerous, simply because they may be unable to bite, for as a consequence of this early paralysis, the lower jaw drops, and the animal becomes unable to close its mouth, the tongue hangs out, and an abundance of saliva escapes. The animal usually remains quiet and pays little attention to calls, and appears to realize its helpless condition.

Three quite distinct stages are found in the furious form of the disease. First, the prodromal; second, the stage of irritation or excitement; and third, the paralytic stage.

In the prodromal stage, the animal shows some peculiar change in behavior, which in its beginning may be entirely overlooked. Most dogs become irritable, or gloomy, avoid noise, hide in dark corners or under or between furniture. They may be capricious at times, more affectionate than usual, they are fretful and restless and move about more or less constantly. The animal develops hallucinations which may lead them to think they are being annoyed by someone or something. They snap at the air in what appears to be a "fly catching" attempt; they crouch ready to spring on the enemy; they may howl in a peculiar changed voice or may sit and stare with a peculiar leer, registering both fear and cunning. As the stage of excitement begins, the symptoms become more marked. The unrest and excitement increases to a more or less violent rage. He chews the various objects at hand, and tears them to pieces. He wishes to get away, but if kept confined the paroxysms of fury continue, more or less, intermittently until there is complete paralysis and death. If loose the animal runs aimlessly along at a rapid pace, eyes haggard, tail depressed. He is quite indifferent to his surroundings. He may attack and bite viciously animals or persons, occurring in his path, and may cover many miles before dropping from paralysis and exhaus-

tion. No particular indisposition toward food, or fear of water is shown by rabid animals. In fact, affected dogs in their aimless wanderings plunge into and cross streams without fear or hesitation.

The clinical symptoms in dogs are subject to considerable modification. Variations in the duration of the various stages occur, and in the violence of the symptoms. This may be attributed more or less to breed and environment, as dogs of lively temperament living in the open are apt to become more violent and aggressive than the smaller and more gentle house dog.

In those cases when the various stages of the disease are distinctly separated and the opportunity has been given to observe the whole course and development of the disease, or at least a greater part of it, diagnosis may be quite readily established.

In those cases where persons or animals have been bitten by suspected dogs, a positive diagnosis becomes important and necessary. It is then advisable that the suspected animal should not be killed, if it is possible to restrain it, and keep it under observation until its natural death, in order that the characteristic symptoms and lesions of the disease may further develop.

The existence of rabies is established by microscopical examination of the brain for Negri bodies. Their presence is at this time considered diagnostic. Rabies which is already developed cannot be arrested or changed in its course. Hence, it becomes entirely a problem in preventive medicine. While it is advisable that the infected wound be given early, vigorous and appropriate local treatment, a favorable result from this treatment can never be predicted with certainty; the bitten person or animal must be considered suspicious and should be kept under observation and given preventive vaccination.

Until quite recently the control of rabies seemed impossible, as no practical means of immunizing animals against the disease was available. The methods of immunization, which for many years have been used successfully upon human beings and which require some twenty-one daily injections, have been practically prohibitive in the case of animals because of the cost and inconvenience.

Recently the Japanese investigators, Ameno and Dol, discovered a new method of producing rabies vaccine, which has made it possible to immunize animals with a single injection or treatment. Thus the cost of immunity for animals has been

brought within the reach of all and the inconvenience reduced to a minimum; all of which encourages us to believe that now the control of the disease among animals has become practical and its final eradication not impossible.

As the canine family seems to constitute the great reservoir, so to speak, from which this disease is disseminated, it would seem advisable that some earnest and special efforts should be made to control the disease among these animals. The time honored quarantine and muzzling order has the disadvantage of being difficult to enforce. Again, for instance, a forty-day quarantine order cannot protect the community from an animal with a sixty-day period of incubation. "Rabies scares" are becoming a common occurrence in our community. Just at present we are having our first one for the year 1924. A quarantine and muzzling order is now in effect in our city.

Recognizing the value of this new vaccine, our esteemed health officer, Dr. W. H. Young, in issuing the quarantine and muzzling order also issued a supplemental order providing for exemption, from muzzling or quarantine for those dogs that were vaccinated by a qualified veterinarian, who must place a vaccination tag on the animal's collar and issue a certificate of vaccination to the owner, and keep a record of the vaccination himself. Some of the advantages of this procedure are: The animal is protected for one year and is not inconvenienced in any way. The owner is not deprived of the use or companionship of the animal. It is good "Preventive Medicine" and is an initial step toward the final eradication of the disease.

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The Mechanism of Cardiac Irregularities

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Read before the Sedgwick County Medical Society,
March 4, 1924.

In the clinical study of the heart, consciously or unconsciously, the medical man is studying that heart from three somewhat distinct and yet definitely related directions. First and most important, he is studying the heart from the standpoint of its muscular power and its ability because of its muscular power to carry on the circulation. The most important part of this examination is the careful study of the symptoms of the patient with special attention to the two cardinal symptoms of shortness of breath and cardiac pain. Without an understanding

of how to study the heart muscle in this way, the physician will never be able, no matter what other accessories are used, to give the cardiac patient the best type of care. The second part of the study is directed toward the study of the condition of the valves, largely through physical examination, especially through the use of auscultation. It is to be emphasized here that the chief value of the study of the valvular condition is that it indirectly throws a certain amount of light on the condition of the heart muscle. A sound heart muscle can stand the mechanical effects of almost any type or degree of valve lesion, but as a rule the process, rheumatic, syphilitic, or arterio-sclerotic, which produces a damage to the valves, also damages the heart muscle. The third direction of study in a heart case, is a study of the conduction system of the heart. Since any type of irregularity is produced, through conditions affecting the conducting system, it is evident how frequently we consciously or unconsciously study the heart from this standpoint. Again it is to be emphasized as in study of valves that the chief, but not the only value that it gives is the light that it throws upon the condition of the mass of the heart muscle, since any condition which affects the conducting system is also apt to affect a larger part of the heart muscle. It is with the newer developments in this field of study of heart conditions that this paper will deal.

A brief sketch of the development of our knowledge of the conduction system of the heart is of interest. In 1856 Koelliger and Mueller first demonstrated the presence of a current of action in the heart. These investigators were able by laying a frog nerve-muscle preparation in contact with the beating heart to show the presence of two distinct electrical discharges with each beat of the ventricle. In 1883, it was shown that the normal ventricular rhythm in certain animals was dependent on impulses derived from the auricles. In 1887 Waller, by the use of a capillary electrometer showed for the first time that it is possible to register the electrical reactions of the human heart. In 1893 His first described a small band of muscular fibers connecting the auricles and ventricles. These observations were substantiated in 1904 and 1903 by Tawara, who fully described the junctional tissues, which according to the present view represent the only functional connection between the auricles and ventricles. In 1906 and 1908 Keith and

Flack described the *nero-muscular tissue* now called the *sino-auricular node*, thus completing the anatomical description of the conducting tissues as they are known. In 1903 Einthoven introduced a new instrument, the string galvanometer, which was very sensitive and gave such accurate records that it soon took a dominant place in experimental and clinical studies of certain physiological functions and pathological conditions of the heart. The use of the string galvanometer, as incorporated in the electrocardiograph, is based on the fact that if a suitable conducting wire is suspended between the two poles of the magnet, an electrical current such as is generated with each heart beat will cause certain deflections of the wire, which movements may be magnified and photographed. Mackenzie in the years of 1893 to 1904 had thrown some light upon the mechanism of cardiac irregularities by careful and painstaking work with a polygraph, but the use of the electrocardiograph in experimental and clinical work has thrown a flood of new light upon the field of cardiac irregularities.

To gain an understanding of the clinical disorders of the heart beat, it is necessary to understand the anatomy and physiology of the conduction system. The impulse for the normal heart beat arises in a node of special *neuro-muscular tissue*, situated at the junction of the superior vena cava and the right auricle. This special tissue is called the *sino-auricular node*, the *Keith-Flack node*, or the *normal pace-maker*. From this center of origin the excitation impulse for the heart beat travels through the auricular musculature to the next portion of the conducting system, namely the *auriculo-ventricular node*, which is a small collection of this special *neuro-muscular conducting tissue*, situated at the base of the auricular septum. From this node the excitation wave travels through the body of the *auriculo-ventricular bundle* of His to the ventricles and there this bundle soon divides into a short left branch and a longer right branch. These two branches break up into an extensive arborization system of Purkinje fibers, just beneath the endocardial lining of both ventricles. It is this excitation wave which produces the electrical deflections registered by the electrocardiograph and modern electrocardiography is based on the fact that when the excitation wave for the heart beat pursues its normal course through the conduction system, a certain definite normal type of

electrocardiogram is obtained and that if the wave pursues an abnormal course, an abnormal electrocardiogram will be produced.

The normal electrocardiogram always shows certain deflections which have definite normal relations. These deflections have empirically been lettered the P, Q, R, S, and T deflections. These deflections can be divided into three complexes as follows:

1. The auricular complex or P wave, which normally is upright in all three leads and normally is not over one-fifth second in duration. This wave represents the auricular systole.

2. The first ventricular complex, consisting in its full form of three quick opposite deflections, lettered Q, R, and S. This complex represents the passage of the excitation wave through the conduction system of the ventricle and occurs at the very beginning of ventricular systole. Normally the duration of the Q, R, S complex is not over one-tenth second.

3. The second ventricular complex, consisting of a broad, blunt wave, lettered T, which occurs at the end of ventricular systole.

If in any subject abnormal electrical curves are obtained, it is certain that there is some abnormality of the heart. However, it does not follow that if the electrocardiograms are normal that the heart is normal.

Empirically, three different leads have been chosen for clinical use, namely, Lead I, right arm to left arm; Lead II, right arm to left leg; and Lead III, left arm to left leg. The variations of normal electrocardiograms are to be learned by a study of curves taken from a number of normal individuals.

The chief clinical disorders of the heart beat may be classified under seven conditions as follows:

1. Sinus arrhythmia.
2. Extrasystole.
3. Paroxysmal tachycardia.
4. Auricular flutter.
5. Auricular fibrillation.
6. Pulsus alternans.
7. Heart block.

Sinus arrhythmia is an irregularity of the heart produced by influences upon the rhythmic impulse formation in the *sino-auricular node*. This node is normally under a certain degree of vagal control and change in the vagal tone will result in certain changes in heart rhythm. Destruction of the vagal influence by injury or atropine

usually increases the rate of the heart action with an upper limit of perhaps 150 beats per minute. Increased vagal tone usually produces a slowing of the heart rate. This may be a uniform slowing or may be an intermittent slowing, producing a waxing and waning in the heart rate. This waxing and waning may be so pronounced as to produce a marked irregularity of the pulse. This sinus arrhythmia is more marked in younger life and frequently is produced by changes in vagal tone during respiration, there being an increase of heart rate during inspiration and a decrease during expiration. The chief importance of these common forms of sinus irregularity is that they may be confused with more serious types of irregularity. In the marked cases the electrocardiogram quickly decides the nature of the irregularity since it will show in sinus arrhythmias a natural sequence of auricular and ventricular complexes in all leads.

The second type of heart irregularity to be discussed is a very frequent one, namely, extrasystoles or premature contractions. The orderly sequence of muscular movements which constitute the normal heart cycle is produced from a single impulse originating in the sino-auricular node and propagated in an orderly fashion through the rest of the conduction system.

However, all cardiac muscle has the inherent power of generating its own impulse and whenever any area of the heart muscle becomes unduly irritable from any cause, it may occasionally generate an impulse which produces a heart beat before the time for the beat in response to the normal impulse arising in the sino-auricular node. This premature beat is called an extrasystole and may arise from an impulse originating in the auricle, in the ventricle, or in the auricular-ventricular node. Hence, the extrasystoles are called auricular, ventricular, and nodal respectively. After the extrasystole, the first normal impulse from the sino-auricular node finds the heart muscle in a refractory state and produces no ventricular contraction. Hence, there is a pause after the premature beat until the second normal impulse produces a heart beat. In the case of auricular extrasystoles, the pause is not quite compensatory. In ventricular extrasystoles, the pause is exactly compensatory. Since the impulse for the extrasystole follows an abnormal conduction path, it produces a marked change in the electrical curve and from this curve the source of the impulse can be definitely

located in the auricle, or right ventricle, or left ventricle.

A discussion of extrasystoles is naturally followed by a consideration of the type of irregularity called simple paroxysmal tachycardia. An attack of rapid heart action may be due to an attack of simple paroxysmal tachycardia, or to a transient attack of auricular fibrillation or to a transient attack of auricular flutter. The term, simple paroxysmal tachycardia, is however best restricted to the condition in which from time to time the normal heart mechanism is interrupted by a series of rapid, regular beats, varying in the rate between 110 and 220 per minute, the series starting abruptly and ending abruptly. Normally the sino-auricular node is the pace-maker of the heart, generating rhythmic impulses at about 70 to 80 per minute. If a new center of impulse formation develops in any portion of the heart muscle and creates impulses at a higher rate than does the sino-auricular node, this new center then usurps the function of pace-maker and dominates the heart rhythm. Such is the condition that produces simple paroxysmal tachycardia and this condition is thus due to sudden accelerations of heart rate in response to new and pathological impulses. The attack may last from a few seconds to a week or more. The rates have been known to vary from 110 to 220 per minute. The center of origin of this pathological rhythm is usually in the auricles, but may be located in either ventricle as shown by the electric curves, thus essentially simple paroxysmal tachycardia seems to be a rapid, regular series of extrasystoles.

Auricular flutter is a condition in which the contraction wave follows a circular and never-ending path in the auricle, the so-called circus movement, the circuits being completed at a rate of 220 to 350 per minute. This gives rise to a very rapid, regular action of the auricles. At each contraction of the auricles an impulse is sent to the ventricles, which may respond to each auricle impulse, but which usually are unable to respond so rapidly and hence often respond to every alternate auricular impulse. This gives rise to an associated condition of partial block, which may be of any grade, such as a 2 to 1, 3 to 1, or a 4 to 1 block. The ventricular action is often regular, but may be irregular, due to changing degrees of block. An attack of auricular flutter may be brief, but often persists for months or years. The patient may have symptoms from the mildest to the most

severe degree. Attacks of loss of consciousness occasionally develop if the ventricles for a period of time respond to each auricular impulse. The resulting rapid ventricular action does not permit sufficient filling of the ventricles to supply enough blood to the brain to maintain consciousness. Flutter is a condition, which in many cases is most difficult to recognize with certainty without the electric curves. Its definite recognition is very desirable as it requires a special type of therapy. The electric curves reveal the rapid regular auricular action and the ventricular responses with the usual relative heart block.

Auricular fibrillation is a condition in which the auricles remain quivering in diastole, due to fine fibrillary twitchings of all of the auricular muscle fibers. The normal regular impulses transmitted to the ventricles are absent and are replaced by rapid irregular impulses produced in the fibrillating auricles, thus giving rise to gross irregularity of the ventricular action. Latest researches seem to show that this is due to the production of innumerable contraction waves in all parts of the auricular musculature and the collision of these waves with each other prevents any co-ordinate contraction of the auricles. The fibrillary waves in the auricles have an average frequency of about 500 per minute. These rapid impulses are all sent toward the ventricles, but the latter are unable to respond so rapidly and usually respond by a completely irregular action of about 120 per minute. However, if there is any damage to the conducting system, a greater degree of block may be present and the ventricular wave may be much slower. It is in this condition that digitalis exhibits an almost specific controlling influence. Its action is due to depression of the conducting power of the bundle of His, so that fewer impulses are transmitted to the ventricles and they consequently become slower, better filled in diastole, and thus carry on a much more efficient circulation. In the electrocardiograms there is an absence of the normal auricular P wave, which is replaced by rapid fibrillary oscillations. The ventricular complexes are normal in outline, but show a gross irregularity as to time of occurrence.

The last irregularity for discussion, namely heart block, is one of the most interesting types of cardiac disorders. It is a condition in which there is impaired function in the auriculo-ventricular bundle, thus delaying or stopping the passage of

impulses from auricles to ventricles. The degree of block divides the condition into the three following grades:

The first stage consists in prolongation of the interval between auricular systole and its corresponding ventricular systole due to the increased time taken for the impulse for contraction to travel from the auricles to the ventricles. This stage is recognizable only by polygraphic or electrocardiographic methods. In the electric curves, it is especially plainly shown.

The second stage, or the stage or dropped beats, is the next phase of heart block and is the condition in which with increasing delay in the transmission of the impulses from auricles to ventricles there is an occasional failure of the ventricles to respond to an auricular impulse and hence, there is a dropped ventricular beat, producing an intermittence in the pulse associated with absence of the heart sounds with the intermittence. This condition is very clearly shown in the electric curves in which there is the prolonged P-R interval with regular, auricular summits and an occasional failure of the ventricles to respond to an auricular impulse. These above two stages are conditions of heart block in which the ventricular rhythm is still dependent upon impulses derived from the auricles. This condition is of much clinical importance, because so frequently it is a cause of sudden death that may have been somewhat unexpected.

The third stage is that of complete block in which impulses from the auricles are completely blocked in the auriculo-ventricular bundle. The auricles beat at their usual rate and the ventricles in absence of impulses from the auricles develop their own rhythm of about 30 to 32 per minute with complete dissociation between auricular and ventricular contraction. The recognition of heart block is of special importance because of the danger of sudden death in partial block and because as a rule, it is associated with marked, general myocardial damage. Several additional disturbances of the heart, important from the clinical and electrocardiographic standpoint will be briefly discussed in conclusion.

Pulsus alternans is a condition in which each alternate ventricular contraction varies in strength. This condition is occasionally seen in the electric curves, but often is recognizable only by a pulse tracing taken from the wrist. This condition is of special interest, because it is practically always associated with marked myocardial

weakness and has about the same prognostic import as has retinal hemorrhage in nephritis.

Inversion of the T wave in Lead II occurs under two conditions. It may occur under the use of digitalis, in which case it is not of prognostic importance. When it occurs, without the use of digitalis, it practically always means severe myocardial damage and has about the same prognostic import as has pulsus alternans. With one or two exceptions, all such recorded cases have rapidly drifted to death.

Bundle-branch block, the last condition for consideration, is analogous to auriculo-ventricular block, except that the lesion occurs in one of the main branches of the bundle and hence does not affect the passage of the impulse to the opposite ventricle through the undamaged branch. This condition is to be recognized only by electric curves, which are very characteristic. This lesion is also nearly always indicative of wide spread myocardial damage.

In a consideration of cardiac irregularities, it is of interest to note the approximate percentage of the frequency of each type of irregularity which is as follows:

Auricular fibrillation, 40 per cent.

Premature contractions, 35 per cent.

Paroxysmal tachycardia, sinus arrhythmia, heart block, and auricular flutter, 15 per cent.

Pulsus alternans, 10 per cent.

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BELL MEMORIAL HOSPITAL CLINICS

Outpatient Clinic of Dr. Donald R. Black

JUVENILE DIABETES.

Within recent years quite a number of cases of mild or temporary diabetes have appeared in the literature. Dr. W. White's case showed sugar at the age of seven years although symptoms were present about a year previous to this time. He was promptly put on a careful diet and has remained sugar and symptom free for the past fifteen years. Von Noorden's case of a seven-year-old boy, who constantly excreted 20 to 30 grams of sugar on a strict diet, became sugar free on oatmeal and vegetables and remained so for at least five years. No subsequent record is available.

While the prognosis of juvenile diabetes, even with insulin, is poor, nevertheless it is probably unfair to base conclusions on the unfavorable results of the past. For example, from 1914 to 1919 the duration of life in juvenile diabetics doubled over the

preceding sixteen years. Just what change insulin will make remains to be seen. Of course little doubt exist but that the change will be more favorable than the above. Most of the recorded cures in diabetes have occurred in children, but in light of our present knowledge, we question the diagnosis in some of these cases.

The following case is reported, first to demonstrate the rapid disappearance of alarming symptoms of beginning coma under insulin therapy, second, to point out the fact that it is possible, under certain circumstances, for a comparatively mild diabetic to present the picture of almost a hopeless case, and third, to point out the necessity of utilizing all diagnostic measures before a diagnosis of diabetes is made.

E. M. Mc., age 6 years, was seen March 24, 1923, complaining of shortness of breath, failure of vision, weakness, polyuria and excessive thirst. Five months previous she had suffered a severe attack of tonsillitis followed by the "flu." She failed to recover strength after this illness and began to lose weight. In September, 1923, her weight was forty-three pounds; in January, 1924, thirty-seven pounds three ounces, and at present twenty-seven pounds. About six weeks before examination polyuria was first noticed. Her mother says at first she would wet the bed every few nights and then every night. Finally she was passing four to five quarts in twenty-four hours.

About one month before examination she was diagnosed diabetes and placed on a rigid diet. Her urinary out-put dropped to about two and one-half quarts in twenty-four hours, but she continued weak, irritable and for two weeks before examination was short of breath. Four days before I saw her she contracted a cold with sore throat and ear ache and for twenty-four hours before she was brought in was extremely short of breath and quite drowsy with dull headache. There has been slight nausea but no vomiting. She had always been subject to severe colds and sore throats although she had never been seriously ill. There is no family history of diabetes, Bright's disease or any other metabolic disorder.

Examination: The child is slightly emaciated and complexion somewhat pale. There is slight puffiness under the eyes and decided acetone odor on the breath. The pupils are equal and react to light and accommodation; the fundus vessels are full, both retinae injected throughout, disks are

clar with well defined margins. The pharynx is red and beefy. Tonsils are very large and red. No pus is expressed from crypts. On examination of lungs, the breath sounds clear, and there is no dullness or rales. The heart is not enlarged and there are no murmurs, with sounds clear and distinct. The abdomen is entirely negative. Reflexes are normal. She was sent to Bell Memorial Hospital in an ambulance immediately, and was admitted at 5:00 p. m. in a semi-comatose condition. Her blood and urine chemistry were as follows:

Blood count: Hg. 73—R. B. C. 3,840,000—W. B. C. 11,600—Polys 72 per cent—Large lymphs 8—Small lymphs 18—Eos. 2.

Urinalysis: Straw, acid, Sp. Gr. 1.036—albumen positive—acetone positive, diacetic acid positive—sugar 3.6 per cent. Total amount not known. Many epithelial cells—15-20 pus cells. Few hyaline casts and few granular casts.

Blood sugar: 290 mg. per 100 c.c.—Blood urea, nitrogen 14.01—Creatine 1.4 mg.—CO₂ 16 vol. per cent.

She was given 30 units of Iletin and only clear meat broth and black coffee were allowed by mouth. The next morning she was sitting up in bed smiling and bright, and feeling and looking fine. Her blood sugar was normal and urine contained 1.2 per cent sugar.

She made a rapid recovery as her tabulated record will show:

	Amt.	Spgr.	Urine		Diab.	CO ₂	Blood		Diet	Iletin
			Alb.	Sug.			Sug.	C. P. F.		
3-25	2.5	1.028	pos.	1.2	pos.	22	88	Fasting	30	units
3-26	2	1.028	pos.	.6	pos.	..	90	20 55 70	20	units
3-27	1.5	1.028	pos.	0	pos.	36	78	35 55 70	10	units
3-28	1.2	1.028	pos.	0	trace	..	160	20 55 70	15	units
3-29	1.2	1.026	pos.	0	neg.	42	135	30 55 70	10	units
3-30	1	1.024	pos.	0	neg.	..	110	30 55 70	10	units
4-1	.9	1.024	pos.	0	neg.	..	90	35 55 70	5	units
4-3	1.1	1.024	trace	0	neg.	..	85	35 55 70	5	units
4-5	1	1.022	neg.	0	neg.	..	90	60 55 100	5	units
4-7	.9	1.018	trace	0	neg.	..	80	60 55 100	0	units

Iletin was discontinued and the patient continued to improve. Her weight increased until at present she weighs 46.5 pounds. August 15th she had a severe tonsillitis with middle ear infection. Her urine contained 1.2 per cent sugar with blood sugar of 125 mg. per 100 c.c. There was a slight sweetish odor to the breath. Her diet had been C-35, P-60, F-75. This was reduced by one-half and she was given insulin, three units three times a day, for three days, at which time her blood sugar and urine were normal. Two weeks following this attack, she entered the hospital for tonsillectomy. We were somewhat dubious about ether anesthesia and she was given

gas. oxygen. Her operative recovery was perfect. Blood and urine remaining normal. Her condition remained good constantly until January 14 when she developed measles. There was slight glycosuria and acetonuria and moderate elevation of blood sugar, 125 mg. per 100 c.c. She was given three units of insulin for five days, during the first part of her illness. Her blood and urine have remained normal since. Therefore, on February 15, she was given a meal containing 90 grams glucose and blood samples taken before and after. The fasting blood sugar was 90 with normal urine. One hour after meal the blood sugar was 280 mg. with 4.2 per cent urinary sugar. Three hours after the meal the blood sugar was 143 mg. and 1.5 per cent urinary sugar.

This to my mind, establishes the diagnosis of true Diabetes Mellitus. Her immediate response to insulin and her ability to metabolize food in quantities sufficient to keep her in good weight and health of course points to an extremely mild type of the disease. We shall watch her progress with extreme interest because I think the possibility of completely arresting her disease is likely.

Outpatient Clinic of Dr. Robert C. Davis

Instructor in Infectious Diseases.

EPIDEMIC CEREBRO-SPINAL MENINGITIS

Clinic before the Fourth Year Class in Medicine.

Upon speaking of Epidemic Cerebro-Spinal Meningitis one usually thinks of the old pictures of the emaciated patient with a marked degree of opisthotonos. It is to correct this impression that I show you one case and to call to your attention the later development in the treatment of cerebro-spinal meningitis of the epidemic type.

It was my very good fortune during the World War to be assigned for a time to the meningitis wards of the Base Hospital at Camp Jackson, where Dr. W. W. Herick of New York, chief of the medical service, achieved such splendid results in the treatment of cerebro-spinal meningitis of the epidemic type with antimeningococcus serum intravenously.

In private and hospital practice it is unusual to see a very large number of cases of epidemic cerebro-spinal meningitis. It depends entirely upon their early recognition as to the outcome of the cases. By early recognition and early treatment, not only is the course of the disease shortened, but a much larger per cent of the cases recover and the complications are markedly

decreased. Then there is one type of case that will die before it becomes a localized meningitis unless immediately treated intravenously and by a large amount of serum. Meningitis of the epidemic type is now recognized to be first a blood stream infection later localizing in the meninges, especially of the brain. This is proven by the work of Herrick and others by the isolation of the meningococcus from the blood stream, from the petechia of the rash, from the joints, pulmonary lesions, pericardium, and other complications.

To emphasize the points I wish to make, I will show a patient.

Patient W. H., age 32, white, entered hospital January 24th, 1924.

The following history was obtained from his roommate who brought him into the hospital

C. C. Vomiting, headache and delirium.

P. H. Had had a cold for a few days previous. The night before entering the hospital started with headache about 5:00 p. m. Ate no dinner. Remarked to his roommate that he was having the most severe headache that he had ever had. Felt as though his head would burst. About 7 o'clock pain was so severe that he took ten grains of aspirin, which relieved him to some extent. About 9:00 p. m. told his roommate that his head felt very queer, but thought he would go out and get something to eat. He returned and went to bed at 10:00 p. m. His roommate states that shortly after midnight he began vomiting, which continued and he became delirious. Called the ambulance and entered the hospital about 5:00 a. m. Had a slight convulsion before entering hospital.

I was called about 6:00 a. m. and found the following: Vomiting and delirium continues. Patient, a white male about 30 years of age, lying in bed on right side, thighs flexed upon body and legs flexed upon thighs. With his arms and hands he holds the covers over his head. When the covers are removed he resists very much. Face flushed, muttering. A macular erythematous rash over forehead and face, but none on body. Any attempt to move patient meets with resistance. Patient attempts to answer questions, but answers frequently wrong as verified by roommate. Shows mental confusion.

Eyes—Pupils equal, dilated; react to light.

Neck—Some rigidity. Brudzinski positive. Kernig positive. Abdominal reflexes nothing abnormal.

Knee jerks—Unequal, right present, about normal. Left doubtful.

No rash over body. No Babinski or Oppenheim.

Temperature, 99.6. Pulse, 68. Respiration, 22.

Essential points in examination: A semi-delirious confused patient, vomiting. With history of one convulsion and starting with a very severe headache. History of a mild cold for preceding few days. Dilatation of temporal vessels and congestion of posterior part of ears. Positive Kernig, Brudzinski, neck rigidity and unequal knee jerks. While preparing for spinal puncture, patient had another convulsion which was generalized in character and moderately severe. Spinal puncture revealed slightly cloudy fluid under slight pressure. 30 c.c. removed in three tubes. Third tube more cloudy than either of the others. From third tube smear shows very few extra cellular diplococci. Unfortunately no antimeningococcus serum was in the hospital, but a messenger was rushed to the hospital with serum. During this time patient had a convulsion lasting one minute; became very cyanotic and pulse rose during convulsion. Patient ceased respiration and pulse became imperceptible. Artificial respiration was given for some time before breathing returned. At 8:30 .5 c.c. serum given patient intravenously for desensitization. Another spinal puncture and 10 c.c. more fluid removed. 20 c.c. of serum given into spinal canal by gravity method, this being all we could get into the canal by this method.

At 9:00 patient had shown no reaction to the desensitizing dose of serum and now was in a state from which he could not be aroused. Respirations rapid and shallow and patient somewhat cyanotic. Pulse 120, weak, slightly irregular. Temperature 101 ax. 120 c.c. of serum given intravenously at 9:00 a. m. The first few c.c. given very slowly. No sign of reaction noted. Hypodermoclysis of normal saline started and 1 litre given.

At 11:20 another convulsion, but not so severe, lasting about thirty seconds.

At 2:00 p. m. 90 c.c. antimeningococcus serum given intravenously.

At 3:00 p. m. patient aroused and asked for a drink of water.

At 4:00 p. m. asked for water and urinal.

At 6:00 p. m. another spinal puncture was done. 30 c.c. of fluid removed and replaced with 20 c.c. of serum by the gravity method.

At 12 midnight patient conscious and 60 c.c. of serum given intravenously.

Temperature 100, pulse 88, respirations, 32.

The following morning a spinal puncture was done and the spinal canal drained and 90 c.c. of serum given intravenously.

The patient has continued to improve and the recovery was uneventful except for a relapse on his tenth day. Patient again desensitized and given serum intravenously and spinal canal drained. Five days later he was sitting up in bed and has continued to improve.

The laboratory reports are very interesting, in that a positive culture was obtained before treatment, from the blood stream with two types of media and one from the spinal canal. The media used was the calf brain media of Rosenow, in which a growth from both the blood stream and spinal fluid was obtained. A growth from the blood stream was also obtained in a 1 per cent dextrose broth tube.

I feel that owing to the severity and rapid progress of the case had we treated this case with serum only in the spinal canal, that we would not have been successful in saving the patient's life. Another unusual manifestation was the convulsions. In adults the onset of cerebro-spinal meningitis of the epidemic type is very rarely accompanied with convulsions.

The points then I wish to emphasize first in the diagnosis are:

1. Sudden onset with headache.
2. The appearance of the patient.
 - (a) Lying in bed on the side with thighs and legs flexed.
 - (b) Cyanosis of posterior part of ear.
 - (c) Dilatation of temporal vessels.
 - (d) Rigid neck.
 - (e) Unequal reflexes.
 - (f) Positive Brudzinski.
 - (g) Positive Kernig.
 - (h) With or without rash or purpura.

3. A spinal puncture should be done immediately and fluids collected in two or three tubes. The latter fluid collected shows more organisms, and even though no organisms are found, (if the fluid is cloudy) antimeningococcus serum should be given or at least a later puncture done and further search. Our plan is to give serum if the fluid is cloudy.

The points in treatment are:

1. Early and intensive treatment with antimeningococcus serum intravenously after testing patient as to sensitization. I

feel that this is much more important than the intraspinal injections of serum.

2. Drainage of the spinal canal as necessary to relieve the pressure.

3. Give lots of fluid. These patients are quite dehydrated and need large quantities of fluid until they are able to take fluids by mouth.

I have seen and treated cerebro-spinal meningitis by both methods and cannot help being enthusiastic about the method described. The spectacular results shown in this one case merely coincide with the many good results reported by Herrick and others in our army experience.

—R—

Forwarned Is Forarmed

Recently, in one of our largest cities, nearly half the dogs who had bitten people or were otherwise suspected of having rabies were found on test actually to be infected with the virus. This an alarming condition of affairs, but not nearly so much so as it would have been before Pasteur Institutes came into existence for the prevention of rabies. And now rabies vaccine is available in such a form that any physician can use it, and the patient may be treated in his home. The very latest advance along the line of simplifying the prevention of actual rabies in human beings was contributed by Dr. James G. Cumming, of Ann Arbor, in taking the virus out of rabies vaccine without diminishing in the least its protective value. The Cumming vaccine is supplied by Parke, Davis & Co., in packages of seven doses, three installments, making 21 doses altogether. The object in sending the vaccine in installments is to keep it as long as possible under conditions most favorable to its perfect preservation.

—R—

The Demonstration of Prostatic Enlargement by the Roentgen Ray.

Edgar G. Ballenger, Omar F. Elder and William F. Lake, Atlanta, Ga., (Journal A. M. A., March 29, 1924), have found that air cystograms with the patient lying face down—clearly demonstrate the intravesical snouts, median lobe enlargements, and similar conditions in prostatic hypertrophy. They do not advise its use in every case, but rather in those in which additional information is necessary in deciding whether an operation is required and whether it shall be the suprapubic or perineal approach.

—R—

The new anesthetic for an easy childbirth is a carefully selected diet before and during pregnancy.

THE JOURNAL of the Kansas Medical Society

W. E. McVEY, M.D. - Editor

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THE WICHITA MEETING

The annual meeting which was held in Wichita on May 7 and 8 was notable in several respects. The attendance was slightly larger than at Kansas City last May, being over 420. The sessions were all held in the Hotel Lassen which added to the convenience of all concerned and was to some extent an economizer of time. The assembly room was well filled during all of the meetings. The Sedgwick County Society provided plenty of entertainment for those who found time to enjoy it. Theater tickets were provided for the ladies and on Wednesday evening for the members who cared to use them. A boxing match at the Athletic Club was the principal attraction on that evening. A banquet was served at the Lassen at 6:30 p. m. on Wednesday.

The Sedgwick County Society should be congratulated on introducing a new custom—permitting the members to pay for the banquet. No criticisms were heard from any source. The old custom had been a burden to every county society that undertook to provide entertainment for the annual meetings. Resolutions have been adopted by the House of Delegates and by the Council against the old custom, but until this meeting no county society has had the

courage to break it. From the attendance at the banquet and the general satisfaction manifested at Wichita it is certain that the new plan has come to stay.

Unfortunately the hall in which the general sessions were held was not constructed with any particular regard for acoustic properties and many of the speakers were poorly heard. In spite of this—or possibly on account of this—those in the hall were unusually attentive when a speaker was on the floor.

The meetings were especially well conducted, everything moved smoothly and there were no prolonged and tiresome discussions.

There were but three failures on the program. One of the invited guests was unable to attend and two members of the Society who had been assigned places on the program failed to appear.

The first meeting of the House of Delegates was held Wednesday evening from 5 to 6:30. At this meeting the reports of the officers and standing committees were read. The proposed amendment to the constitution was discussed and finally rejected by a unanimous vote. It was also definitely expressed as the sentiment of the Society that the present defense system should be continued.

The next meeting of the House of Delegates was held Thursday morning at 8:30. The election of officers was a very tame proceeding. There were no contests except in the election of councillors for two of the districts. Dr. Alfred O'Donnell of Ellsworth was elected president; Dr. George M. Gray was re-elected treasurer. Dr. Sam Murdock, Sabetha, was elected councillor for the First District; Dr. C. C. Goddard was re-elected councillor for the Second District; Dr. J. T. Axtell was elected councillor for the Fifth District; Dr. E. G. Mason was re-elected councillor for the Seventh District; Dr. J. D. Riddell, Salina, was elected councillor for the Eighth District; and Dr. John A. Dillon was again elected councillor for the Eleventh District. The business of the House of Delegates was conducted with all the expedi-

tion possible and yet it was 11:30 before its business was completed. Forty-five or fifty members were in attendance at the meeting of the House of Delegates. These men were unable to hear the papers and discussions of the morning program. It seems practically impossible to arrange any plan that will permit sufficient time for meetings of the House of Delegates and yet not interfere with the other program. This could be accomplished in a three days' session—but it never has been. It would be advisable to set aside a time for the meeting of delegates and provide something aside from the regular program to occupy the time of those who are not officers or delegates. The next meeting will be held in Topeka and will be a three day session. It is to be hoped that the committee on arrangements and the secretary will work out some plan that will eliminate these conflicts.

The secretaries of county societies had a luncheon and round table discussion at noon on Wednesday. This meeting was well attended and the interest shown by the secretaries promises more hearty co-operation and more active interest in society work. All of those present promised to send personal and news items for a column which we hope soon to be able to start.

—R—
CHIPS

Luminal is recommended as a cure for epilepsy.

Serum made from liver is being used as a fat reducer.

The spinthariscopes shows up the flash-light of the electron.

The light of the glow worm is supposed to be caused by the radio activity of the elements of its body.

Contagious, infectious and filth diseases are decreasing, but food diseases are increasing.

Dilation of the nasal cavities is practical in mouth breathers, snorers and some forms of headaches and in rickets. When the nasal passages are normal in lumen, breathing is normal, usually, and the diaphragm churns and massages the abdomen

and chest contents and keeps them functioning properly. Hollow nasal bougies permit nasal breathing during the agony.

The cause of diseased teeth is changing in dentistry. The dentist tells us that while pyorrhea alveolaris may be of local origin the most frequent cause is systemic disorder.

Progressive Homeopathy? For infected wounds—put five drops of the patient's pus in four ounces of distilled water; of this give a teaspoonful every hour for ten hours, then stop!

A new cure for drunkenness is to take a small quantity of the victim's blood and inject it into him. After the treatment a sip of alcohol causes extreme nausea. The effect of the treatment passes off in a fortnight. Just long enough for the victim to forget the prick of the needle and for him to get over the effect of his drunk.

"I do not work with defective, diseased plants. They do not cure themselves. They spread disease."—Burbank.

Theoretically true of animal life, but morally impracticable.

Some people show toxic effects from very small doses of adrenalin is the conclusion of Symes-Thompson (*Lancet*, April 12). These effects are increased when the adrenalin is administered with certain local anesthetics. He thinks that toxic effects might be eliminated when used by dentists if a solution not stronger than 1 in 500,000 be used. The use of adrenalin is contraindicated when operating on patients with Grave's disease.

Dolby and Moore (*Lancet*, 4-24) in an article on the incidence of cancer in Egypt, have brought out some quite interesting if not altogether enlightening facts. They endeavor to implicate a neurotic element in the etiology of cancer from the evidence which shows a low incidence of cancer, and practically, freedom from all forms of functional or organic nervous diseases. There is no suppressed emotions among the people, there is no stoicism and they have no gastric ulcers, no gall stones, no appendicitis and no gastric cancers. This they believe is because there are no causes for gastric invalids, nervous dyspeptics, no hypochondriacs.

During the past few years attention has been more and more frequently called to x-ray disease of the larynx. Following

x-ray treatment of goiter, glandular diseases of the neck, or other conditions in which the x-rays traverse the region of the larynx, this organ may develop mild or serious pathologic changes. There may be a mild reaction, with hoarseness and edema, three or four days after the treatment, but quickly subsiding. There may in other cases be a somewhat more severe reaction occurring ten to fourteen days after treatment, with hoarseness and edema of a more severe type, or a laryngitis sicca, which also subsides in a week or two. Then there is an ulcerative or necrotic form with marked and rapid destruction which may occur at any time from four to twelve months after the treatment.

Weiss, on the theory that the pathologic changes, the cloudy swellings, nephritis and uremia in cases of mercuric chloride poisoning are due to acidosis (*Archives of Internal Med. Feb.*) suggests a treatment which will tend to lessen the acid intoxication. The stomach is washed out with two quarts of a saturated solution of sodium bicarbonate. Six ounces of a saturated solution of magnesium sulphate introduced through the tube and left. A soapsuds enema is then given. An intravenous injection of 1 to 1.5 liters of 4 per cent sodium bicarbonate solution is given. The patient is given to drink, from six to eight times a day, 8 ounces of water, orangeade or lemonade, containing a teaspoonful of potassium bitartrate and a half teaspoonful of sodium citrate.

Stieglitz has shown, from the findings of deposits of iron in the tubules of the kidney in cases of pernicious anemia, (*Archives of Internal Medicine, Jan.*) that the disturbance of renal function common in this disease is due, at least in part to the accumulation of iron in the tubules thus inhibiting the passage of water and total solids and reduces the specific gravity of the urine. Fixation of the specific gravity and an increase of the night over day urine volume is characteristic of the alteration of renal function in pernicious anemia.

According to Dr. Cumming, U.S.P.H.S., the number of patients in Marine hospitals has trebled and the cost of hospital care has doubled since 1913. "Statistics published by the Bureau of Labor show that the price level of major necessities averaged 70 per cent higher than in 1913 and stated that the improved standards of living now

prevailing also reflect themselves in every detail of hospital management, including the wages of personnel. The employment of trained female nurses alone adds approximately \$500,000 annually to the operating costs of Marine hospitals, which are, however, lower than those of civilian hospitals providing the same character of service. The per diem cost per patient in 1923 was \$4.08, which includes all salaries of surgeons, regular and special nurses, and other personnel, food for patients and attendants, light, heat and power, repairs to buildings, and some items not included by private hospitals in their cost reckoning. That other hospitals have had similar financial experience is evidenced by the fact that the majority of civil institutions show an increase of approximately 100 per cent in their operating costs over those of pre-war days."

The Resistance of Malaria to Quinin.—In 1917, reports began to appear that English soldiers in the tropics were being attacked by malaria that quinin would not cure. A report was published that quinin was ineffective in cases that were complicated by dysentery. An extensive study has demonstrated that quinin will cure malaria and that dysentery does not prevent the cure. In these cases the physician administered the quinin by mouth and made sure that it was swallowed. A study of the intramuscular injection of quinin demonstrated that necrosis of the muscle always occurred and that the absorption was less satisfactory than when the drug is given by mouth. It was shown that there was a profound fall in blood pressure when quinin is introduced intravenously, and one case of death and one case of serious sepsis are reported. It was also found that quinin is too irritating to be administered by rectum.—*Jr. A. M. A. April 5, 1924.*

The administration of parathyroid gland has been reported of value in the treatment of a number of cases of tetany following the operative removal, or the injury of the parathyroid gland. It has prevented the attacks of tetany and of infantile tetany and seemed at times to have prolonged life, or to have saved it, while the injured glands regained their functions. It has been stated to be of value in some cases of gastric tetany, although in other cases the results were negative. Parathyroid gland has been used by some one or another at some time (and claimed to be of value) for conditions such as varicose ulcers, gastric, duodenal

and cervical ulcers, tuberculosis, sinus of the hip, paralysis agitans, eclampsia, etc., but that such disorders are regularly and favorably affected by parathyroid gland administration is a conclusion unsupported by controlled clinical evidence. (*Journal A. M. A.*, April 19, 1924.)

—R—

COMMENT

BY THE PRODIGAL

The number of students attending the cult schools outnumbers the students attending the regular or so-called sectarian medical colleges. Why? At the time the Kansas Medical College helped to organize the American Medical College Association, in Nashville, Tenn., in 1890, there were one hundred and eighty medical colleges in the United States. Each one of these colleges or schools claimed to teach regular medicine, and later wanted to be fathered by the college association. There are about sixty recognized medical colleges in the United States at the present time. The standard of literary requirements for entrance into a medical college has been raised. The time required to get a medical diploma has been lengthened. The cost of living has increased. The life expectancy is so short, for the graduate, from the time he gets the degree of M. D. to the time of his dotage that he has but a few years to establish himself; to lay by a little filthy lucre for accidents, sickness, a rainy day, probable senile needs; and in fact to make good. During the time of his medical non-age his material is increasing in number—the people. The demand for doctors is greater than at any other period of recorded time, because doctors know more and can do more professionally for the people than ever before, and doctoring has become more fashionable and faddish.

Hence the dearth of physicians. The demand exceeding the supply, substitutes must be used. The boot-leg doctor presents, and an abortive entity—the cult or pseudo-medical school is born. The children of these cult schools or “institoots” are illegitimate. Illegitimacy of itself is not a crime to be charged to the unfortunate. But his education and environment has been and is such that it makes the pseudo a menace to his fellow man.

The medical man makes mistakes and at times injures his patient. But there is this difference. He has qualified himself for the work and is constantly seeking for more light and does the best he knows. Whereas, the high up, smooth cult, knows he is a

wolf in sheep's clothes and that he is deceiving and injuring his victim, suppresses and withholds facts, and encourages ignorance in his students.

But such has been the practice all down through the ages and will continue. Then, what are we going to do about it? Suppress the cult? It can't be did. Ignore him? There is too much of him. Persecute him? That would put us on a lower plane than the cult. Prosecute him? That would advertise him and increase his number. If all, or any one, of the things enumerated here could be done it would not be desirable. The cult serves a purpose in medical economy and in progressive evolutionary medicine.

In the first place, the cult satisfies the innate desire of a large number of people who believe in the supernatural and are satisfied with miracles only, in the treatment of disease.

This class of people may be catalogued with a third rate medical student who was graduated in my class, and when I asked one of the professors why they had graduated such an ignoramus, he said: “Anybody who would employ such a doctor ought to die.” A little too severe but the principle remains intact.

Again the cult is different from the regular and this difference serves to make a comparison. But if Dr. Mayo is right, and of the 50,000 regulars doing surgery in the United States, but 5,000 of them are fit to do surgery, the line of demarkation is not as clean cut yet as it should be. Such practice helps to keep the cult on the map. But he is a necessary evil. He is an ever present object lesson to the qualified physician and surgeon, showing them the necessity for getting a little higher up in the scale of proficiency in their work and results. There are two view points to almost every question. Maybe the practice of regular medicine, as done, helps to blur the line of practice between the pseudo and the true, to such an extent that the people cannot see the outline at all times. The qualified medical man is placed at a great disadvantage from the fact that medicine is not an exact science, like chemistry, and nine people out of ten who call a doctor in would get well (and maybe more of them) without the doctor. This gives the cult a chance to be on the air most of the time and he has the audience.

There are but few persons who can detect counterfeit money. To do so requires knowledge, intelligence, reason and judg-

ment. The same principle holds good in detecting the scientific, qualified physician from the assumed one.

Again, the cult serves to jolt the medical man out of the rut into which he is liable to drop. The jolt is caused by a wrong diagnosis or prognosis he had made and the pseudo was called in and the patient lived. Self preservation, the avoidance of another such bull sets the wheels in mesh again in the doctor's head and he pulls out of the ditch and tries to keep out. I believe that war will continue at times so long as man remains man. It appears to be a biologic necessity. But this does not lessen man's responsibility to cultivate and practice a humane spirit and minimize suffering and the destruction of human life during war.

The cult has been and will be always with us, but it is the duty of the medical man to minimize and prevent the injury done or liable to be done by the pseudo. This cannot be done by suppression, persecution, maiming, killing the cult or pulling his house down. But the injury may be largely averted by educating him by example and building a better house by his side.

From one cause or another the regular profession in medicine, in California particularly, has struck the wrong chord in harmonizing the melody, to soothe the ear of the people, between regular medicine and cult practice. After trying to prevent or suppress cult practice for a number of years, by a referendum vote of the people two years ago, the cults won hands down by a 100,000 majority. This has put the regulars in bad in the estimation of the people and like the man who tried to get rid of a skunk that raided his hen house by killing it, lo and behold! Seven more (little skunks) showed up.

A number of the numerous isms having received their naturalization papers they are now on the medical board in good standing, of good repute, and in the faith, and they are in turn helping the regulars to prosecute the, yet aliens, and hence undesirable and heretics.

Why go to this enormous expense, loss of time and labor in running the unwashed down, when the people, who are affected, by an overwhelming vote said, "Don't do it, let them alone, we welcome and will employ them." And they do employ them. It is hard to kick against the pricks. Maybe it is the better way. I am not questioning the motive of the medical men who are engaged in getting evidence and prosecuting

these pretenders. But I am mentioning the effect. Heretics are increasing. Is this state of affairs in the practice of medicine by the cults discouraging? No. Is it a handicap to progressive evolutionary medicine? No. Truth is never discouraged or dissatisfied. Truth may be unsatisfied. That is, pleased with what it has but wants more. Instead of a handicap or obstruction to true medicine, it is a guard for our protection, necessitated by our ignorance, in showing us the wrong that we may avoid the pitfalls on the way to the medical goal.

Since a standard or goal must be set to approach, this standard should represent the best intellectual thought and practice of the age.

—B— SOCIETIES

STAFFORD COUNTY SOCIETY

Society met in St. John at 3:00 p. m., April 9th. Members present: F. W. Tretbar, J. J. Tretbar, T. W. Scott, Stafford; R. E. Stivison, Hudson; H. H. Miner, Macksville; C. S. Adams, L. E. Mock, J. C. Ulrey, J. T. Scott, St. John. Dr. Martin, Cullison, and Dr. Philips, Pratt, were visitors.

The program was rather unusual in that it consisted of a lecture by Dr. F. W. Tretbar, giving his observations on a recent trip through Europe. Members were requested to bring their wives and a number of them were in attendance: Mrs. Adams, Mrs. Philips, Mrs. Martin, Miss Harris and Mrs. Scott. Light refreshments were served the ladies, Mrs. J. T. Scott acting as hostess.

Dr. Tretbar described his trip from the time of sailing from this country until his return, having visited practically all the countries of Europe, their large cities and great universities. A large number of post-cards were exhibited showing all important places of historic interest. The lecture proved to be a very interesting and happy innovation besides demonstrating that Dr. Tretbar has accomplishments aside from those of his profession.

Dr. W. L. Butler, of Stafford, will read a paper at the May meeting on a surgical subject not yet announced.—J. T. SCOTT, *Secretary*.

THE MEADE-SEWARD COUNTY SOCIETY

The Meade-Seward County Medical Society met at Meade on Thursday, April 10th, at the office of Dr. W. F. Fee. At 6 p. m. we were invited to the beautiful home of Dr. Fee where a course banquet

was served by Mrs. Fee and daughters. After the banquet was over we went back to the office of Dr. Fee where a couple of papers were read, one by Dr. Davis, of Plains, subject, "Modification of Infant Feeding."

The paper was very scientific and was discussed by all present. Dr. Fee read a paper on "A Plea for Tubercular Patients, Especially the Young," which was very interesting and was discussed by all present. This was one of the best and most interesting meetings of our society, every one taking great interest in the papers and discussions. Those present were: Drs. Fee and Lesley, of Meade; Drs. Huddleston, Morrow, Smith and Messersmith, of Liberal; and Dr. Davis, of Plains. Our next meeting will be held on the first Thursday in July at Liberal.—J. W. MESSERSMITH, *Secretary*.

COFFEY COUNTY MEDICAL SOCIETY

The Coffey County Medical Society met in Burlington, April 23, at the National Hotel where a "feed" was "put where it would do the most good." The society then adjourned next door to Dr. Gray's office for its formal meeting which was opened by Dr. Salisbury acting chairman in the absence of Dr. Fear, the president of the society.

Dr. Seth A. Hammel, of Topeka, was introduced and he read a fine paper on "Tuberculosis," taking it up from all angles, discussing at length each phase in an intelligent and instructive manner.

An interesting clinic was then provided by Dr. Manson, Burlington. This was discussed and both possible and probable diagnoses were made. A number of case reports were given and discussed freely by all members present.—A. B. McCONNELL, *Secretary*.

THE SOCIETY FOR CINEMATOGRAPHIC INSTRUCTION IN MEDICINE AND SURGERY

The Society for Cinematographic Instruction in Medicine and Surgery, with headquarters at 105 West 73rd Street, New York City, announces that, after two years' intensive experimentation with various cinematographic technicalities, it is now ready to proceed with its full program.

"It has been necessary to make a lengthy and accurate test of cameras and of various methods for filming, developing and printing of films, which procedure has consumed considerable time and money," James S. Edlin, M.D., president of the society, states. "We now have in charge of our film pro-

duction a man who has had many years' experience in the production and distribution of educational and pedagogical films—Mr. Samuel A. Bloch. Mr. Bloch organized the educational department for one of the most prominent film companies, and has produced educational and technical motion pictures independently. He is both an educator and a trained motion picture executive."

The society is now ideally equipped, Dr. Edlin says, to produce films for the medical, surgical, dental, drug and allied professions, and invites correspondence from all those interested in membership in the society, as well as those desirous of securing excellent and truthful motion pictures.

Among the cinemas already produced by the society are the following: "A Study of the Motor Control of Gait and Posture," from the Neurological Division of the Montefiore Hospital, New York City, S. P. Goodhart, M.D., director, and a "Study of Diseases of the Nervous System," from the Neurological Division (Cornell College) of Bellevue Hospital, New York City, Foster Kennedy, M.D., visiting physician in charge—both produced under the direction of Walter M. Kraus, M.D.; "Root Resection," Adolph Berger, D.D.S., oral surgeon, Vanderbilt Clinic, New York City; "Presentation of Surgical Cases from the Hospital for the Ruptured and Crippled," New York City, under the direction of Charlton Wallace, M.D., associate surgeon and chief of clinic.

LABETTE COUNTY MEDICAL SOCIETY

The Labette County Medical Society met in regular session at Mercy Hospital, Parsons, Kan., the evening of March 23rd.

The society was royally entertained by the Sisters and nurses with a big banquet. The dining room was beautifully decorated and novel place cards were at each plate. This was enjoyed by some twenty-five doctors.

Dr. R. D. Irland was the guest and instructor for the evening. His subject was "The Treatment and Management of Appendicitis Which Is Not Found in Literature." His viewpoint brought out a warm, friendly discussion which was much enjoyed by all present. After this Dr. Irland took up and discussed briefly "Uterine Hemorrhage."

We all went home feeling good—the inner man being full and with a feeling we were broader and had learned something. We extend to Dr. Irland a hearty invitation to visit our society any time.

The society expects to have a large, open meeting at some near date, to which the public will be invited.—D. R. WILSON, *Secretary*.

DECATUR-NORTON COUNTY SOCIETY

The Decatur-Norton County Society met at Norton Thursday, April 17, in the Chamber of Commerce rooms at 1:30 p. m. A splendid program was presented and after each paper there were very interesting discussions. The program was as follows: "Infant Feeding"—Dr. W. F. Deal, Edmond. Discussion, Dr. H. S. Bennie, Alma. "Acute Osteo-Myelitis"—Dr. F. J. Walz, Bird City. Discussion, Dr. H. O. Hardesty, Jennings. "Acute Abdominal Obstruction"—Dr. C. E. Henneberger, Atwood. Discussion, Dr. W. C. Lathrop, Norton. "Apprenticeship"—Dr. Roland G. Breuer, State Sanatorium, Norton. "Third Stage of Labor"—Dr. A. G. Davis, Logan. Discussion, Dr. Jay Smith, Decatur. "Treatment of the Mentally Sick"—Dr. Karl Menninger, Topeka.

ANNUAL HEALTH EDUCATION CONFERENCE

At the invitation of the Massachusetts Institute of Technology, a working conference in "Health Education" is to be held June 23-28 at Cambridge, Mass. The conference called by the Health Education Division of the American Child Health Association will be limited to 100. Registration must be made in advance. Address Emma Dolfinger, 370 Seventh Avenue, New York City.

AMERICAN CHILD HEALTH ASSOCIATION

The second annual meeting of the American Child Health Association will be held in Kansas City, Mo., October 15, 16 and 17, in the Grand Avenue Temple. Several meetings will be held in conjunction with the Kansas City Clinical Society which will also convene that week.

Dr. Borden S. Veeder, professor of the Clinic of Pediatrics, Washington University, St. Louis, Mo., is chairman of the program committee. Members of Dr. Veeder's committee are: Miss Sara B. Place, R.N., superintendent of Infant Welfare Society, Chicago, Ill., Miss Maude A. Brown, director of Health Education of the Child Health Demonstration, Fargo, N. D., and Dr. S. Josephine Baker, consulting director in maternity and infancy and child hygiene of the Children's Bureau of the United States Department of Labor.

Dr. Frank C. Neff of the Kansas City

Pediatric Society, is local chairman of arrangements for the convention and he is being assisted by a committee of citizens representing local organizations. The meeting in Kansas City will bring together the lay members of the American Child Health Association and an eminent group of physicians, nurses, public health specialists, deans of medical and dental colleges of the leading universities of the country, nationally known educators, nutritionists, biologists and specialists in various scientific fields connected with child health investigation.

DEATHS

Edwin S. Haas, Claflin, aged 49, died March 10, of an overdose of phenol taken accidentally. He was a graduate of the University Medical College of Kansas City, Mo., 1900. He was a member of the Kansas Medical Society.

David B. Moore, Osage City, aged 82, died March 7, of senility. He was graduated from the St. Joseph, Mo., Hospital Medical College in 1880. He was a member of the Kansas Medical Society and was a Civil War veteran.

Simon B. Langworthy, Leavenworth, aged 62, died at his home April 15. He was a graduate of the Kansas City Medical College, 1887. He practiced in Kansas City four years and in Leavenworth thirty-two years. He was president of the faculty of Cushing Hospital School of Nurses and for a number of years he was a lecturer upon Gynecology in the School of Medicine of Kansas University. He was a member of the Kansas Medical Society.

John N. Venard, Ness City, aged 75, died April 2, of senility. He was licensed in Kansas in 1901.

Milton C. Burton, Inman, aged 60, died March 26, of cerebral hemorrhage.

BOOKS

Operative Surgery. Covering the operative technic involved in the operations of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S. Former surgeon in charge of general surgery, Manhattan State Hospital, New York; former visiting surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original, and separate desk index volume. Volume 3 containing 1,001 pages with 1,249 illustrations. Philadelphia and London; W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index volume free.

The third volume begins with operations on the eyes and their accessory structures.

Following this are operations upon the ears and their adjacent structures; operation upon the nose, the sinuses, the cheeks, the lips, the teeth, the hard and soft palate, the tongue, the pharynx, the salivary glands and ducts, the esophagus, the larynx, thyroid gland, the thymus gland, etc. Then operations upon the neck, breast, thorax-pleura, lungs, mediastinum. All the operations are carefully described and fully illustrated. There has been nothing published that will compare with this work, judging from the three volumes completed.

Methods in Medicine. The manual of the medical serpice of George Dock, M.D., Sc.D., formerly professor of medicine, Washington University School of Medicine, by George R. Herrmann, M.D., Ph.D., instructor in medicine, University of Michigan, etc. Published by C. V. Mosby Co., St. Louis. Price, \$6.50.

With the growing interest in, and demand for, systematized methods in hospital as well as private practice, this book should be well received. It is a description in detail of the methods that were followed by Dr. George Dock in the Barnes Hospital, and cover administration regulations, as well as the routine methods followed in the diagnosis and treatment of cases, and the proper preparation and filing of records. All of the tests required for diagnostic purposes are fully described.

The Biology of the Internal Secretions. By Franklin X. Dercum, M.D., Ph.D., professor of nervous and mental diseases, Jefferson Medical College. Published by W. B. Saunders Co., Philadelphia.

The author believes that the problems of the internal secretions should be approached from a general biologic point of view. These are problems of metabolism. The most important facts are found in the field of glandular imbalances which result in under and over compensations. In these facts lies the explanation of malignancy.

The Antidiabetic Function of the Pancreas and the Successful Isolation of the Antidiabetic Hormone-Insulin. By Professor J. J. R. Macleod and Professor F. G. Banting—Beaumont Foundation Annual Lecture Course, auspices of the Wayne County Medical Society, Detroit, Mich. Published by C. V. Mosby Co., St. Louis. Price, \$1.50.

The authors describe the investigation that led up to the final isolation of the hormone, the experimental tests that were made and the development and perfection of the methods of administration. This lecture contains some very interesting observations on the effects of insulin.

The Medical Clinics of North America (issued

serially, one number every other month.) Volume VII, No. V, (March, 1924, St. Louis Number.) Octavo of 311 pages and 47 illustrations. Per clinic year (July, 1923, to May, 1924.) Paper, \$12.00; Philadelphia and London; W. B. Saunders Company.

The St. Louis number of the Clinics contains the usual amount of instructive matter. Engelbach discusses pituitary tumor. Kinsella has a clinic on hypertension in nephritis and Marriott one on nephritis in children. Some of the problems in the diagnosis of lobar pneumonia in children is the subject discussed by Veeder. Taussig discusses non-diabetic glycosuria and non-glycosuric diabetes; and Olmsted presents the value of weight curves in determining the severity of diabetes. There are also clinical reports by Jeans, Zuhorsky, Brady, Schwab, Barnes, Tierney, Wilson, Lyter, Luten, Loper, McMahon, Hempelmann and Neilson.

Dosage and Solutions. A textbook for nurses and a reference book for physicians and nurses by C. E. Garnsey. Published by W. B. Saunders Co., Philadelphia.

This is a very handy little book giving dosage, methods of preparing solutions of various strengths, compounding, etc. It would be a very convenient little help for the physician at times.

Obstetrics for Nurses. By Joseph B. DeLee, A.M., M.D., professor of obstetrics in Northwestern University Medical School, etc. Seventh edition. Published by W. B. Saunders Company, Philadelphia.

This edition has been thoroughly revised. Several of the chapters have been considerably enlarged and considerable new material will be found throughout the book. Whatever has been needed to meet the requirement for a modern textbook on obstetric nursing has been supplied.

Notes From the Medical School

A recent survey of the activities of the faculty of the medical school showed that during the past year 106 papers were read before medical societies and 104 articles were published. Among the medical journals in which the contributions from the medical school were published were: Journal of the Kansas State Medical Society, Journal of the Missouri State Medical Association, Journal of the American Medical Association, Archives of Internal Medicine, American Journal of Medical Sciences, Bulletin of Johns Hopkins Hospital, Journal of Experimental Medicine, and Journal of Biological Chemistry.

Dr. Russell L. Haden recently delivered

the Mayo Foundation lecture at Rochester, Minnesota, on "The Elective Localization of Bacteria."

Dr. Thomas G. Orr was elected president of the Kansas City Academy of Medicine, at their last meeting.

The interne appointments from the members of the Senior class for next year have recently been made, and among the institutions at which the University of Kansas is to be represented are St. Francis Hospital, Wichita, Kansas; Kansas City General Hospital, Kansas City, Missouri; St. Louis City Hospital, St. Louis, Missouri; Cleveland City Hospital, Cleveland, Ohio; and New Haven Hospital, New Haven, Connecticut.

Dr. Joseph L. Miller, Professor of Medicine at Rush College, and editor of the Archives of Internal Medicine, addressed the students of the Medical School recently on "Medical Education."

Dr. H. R. Wahl and Dr. F. C. Helwig presented papers at the annual meeting of the Association of American Pathologists and Bacteriologists at Buffalo, New York, in April.

The new Bell Memorial Hospital has been completed and the greater part of the equipment either installed or ordered. It is planned to use this building during the coming summer. A temporary dispensary building will be erected at the new site in order that the in-patient and out-patient departments of the hospital may be kept together.

Dr. C. C. Dennie has been elected collaborating editor of the American Journal of Syphilis.

Dr. John D. Bigger, of Seoul, Korea, recently spoke to the medical students on "The Practice of Medicine in Korea." Dr. Bigger graduated from the University of Kansas School of Medicine in 1911.

Dr. H. M. Conners, of the Mayo Clinic, delivered a lecture before the students last month, on the "Diagnosis of Diseases of the Lung."

Dr. George E. Coghill presented two papers from the Department of Anatomy, at the recent meeting of the Association of American Anatomists, at Buffalo, New York.

Dr. Frank C. Neff has been appointed Professor of Pediatrics and Pediatrician-in-Chief of Bell Memorial Hospital. He will assume his duties this summer.

--- The Treatment of Mastitis.

M. Pierce Rucker, Richmond, Va., (Journal A. M. A., March 15, 1924), states that

the prophylactic treatment consists of common sense and cleanliness. It should start at the very beginning. After the breast becomes inflamed, treatment depends on whether or not pus be present. Abortive treatment consists of rest in bed, a tight breast binder supporting the breast up on the front of the chest, and either ice or hot water bags. Rucker prefers the ice bag, as it seems to relieve the pain more completely. When pus forms, it should, of course, be evacuated. Rucker makes a stab incision and institutes Bier's hyperemia. Gardiner's treatment shortens the course of the disease considerably. Small abscesses can be made to heal within a week. In a considerable number of the cases a small sinus forms along the needle track after two or three days. When this occurs, Rucker has resorted to Bier's hyperemia to empty the abscess cavity, believing that it not only empties the cavity better, but also washes it out with fresh blood, and collapses its walls. The pressure binder is kept up just as Gardiner recommends. More recently, after making the puncture and aspirating the pus, he has filled the cavity with a 2 per cent solution of mercurochrome—220 soluble, and then aspirated that before applying the pressure binder.

--- Dermatosis From Furs.

From time to time, reports have appeared in medical literature of persons who have suffered severe eruptions and irritations of the skin following the wearing of furs. The suggestion has previously been made that this eruption is the result of special sensitivity to a dye substance known as paraphenyldiamin. Moreover, cases have also been reported of severe reactions when this substance was used as the basis for hair dyes or so-called color restoring preparations. Dr. R. Prosser White, dermatologist to the Royal Albert Edward Infirmary in England, has now completed a careful study of the manner in which these eruptions are brought about. As is generally known, most of the furs now available as trimming for coats are not what they are presumed to be. Only recently, furriers were discussing the advisability of calling furs by their real names. The London Chamber of Commerce has, in fact, issued a list of counterfeits in which appear such remarkable substances as fitch dyed to represent sable, goat for bear, muskrat for seal, nutria for beaver, rabbit for seal, beaver, otter, mole, chinchilla or sable, and house cat for both skunk and sable. Dr.

White's investigation of the methods used for preparing furs and dying them indicated that the substances of importance in the process which might cause dermatosis are paraphenyldiamin, which is used to produce a black color, and quinone, an oxidation product of paraphenyldiamin, which gives a brown color. By various manipulations with these and other chemical substances, it is possible to cause cheap furs to resemble any of the valuable or higher priced ones. Naturally, the workers who are engaged in preparing furs, as well as the buyers, suffer from the effects on the skin of various chemical substances. The vapor of quinone is irritating to the nose and eyes. The men working in fur establishments are likely to develop eruption of the skin between the fingers. The angles of the mouth, corners of the eyelids, openings of the nose and creases of the neck are particularly attacked by the dye substances. After a study of the furs producing such reactions, Dr. White became convinced that in each instance the primary substance at fault is either the paraphenyldiamin or the derivative quinone. The quinone is a direct irritant, and the results do not appear to him to be due to any special sensitivity. Tests made with this substance in the presence of moisture invariably produced irritation of the skin. The only method of prevention that Dr. White can suggest is extreme care in the finishing and dying processes, with particular attention to washing so as to remove all excess dye and particularly traces of quinone from the fur. He also suggests that when paraphenyldiamin is used for cosmetic purposes, numerous rinsings be employed to prevent any excess of dye or of quinone remaining in the hair.—*Journal A. M. A.*, January 26, 1924.

—R—

The Etiology of Scarlet Fever.

In a series of 100 cases of scarlet fever studied by George F. Dick and Gladys Henry Dick, Chicago (*Journal A. M. A.*, January 26, 1924), in 1922 and 1923, hemolytic streptococci were found in all; 16 per cent of these strains fermented mannite and 84 per cent did not ferment mannite. In 1923, the authors reported experimental scarlet fever produced with one of the strains that fermented mannite. This strain was isolated from a case of scarlet fever. It produced experimental scarlet fever. It was isolated from the experimental disease, and again grown in pure culture. All of Koch's laws were thus fulfilled except

that one which requires that the organism be constantly present in the disease. In order to meet this requirement, it was necessary to learn whether or not experimental scarlet fever could be produced with a strain of hemolytic streptococcus that did not ferment mannite. Two volunteers were chosen. One showed an entirely negative skin test with the filtrate of the streptococcus previously used. The other showed a positive skin test. A hemolytic streptococcus that did not ferment mannite was isolated from the throat of a scarlet fever patient. Part of a forty-eight hour culture of this organism was swabbed on the tonsils of each volunteer. The volunteer who showed a negative skin test remained well. She had no sore throat, no fever and no rash. The volunteer who showed a positive skin test developed scarlet fever. Since the streptococci used in these experiments have fulfilled all the requirements of Koch's laws, the authors assert that it may be concluded that they cause scarlet fever.

—R—

Comparative Values of Magnesium Sulphate and Sodium Chlorid.

The value of hypertonic salt solution for the relief of intracranial tension has been well established. It has been found to be indispensable for the treatment of cases in which cerebrospinal pressure is increased, owing to acute or chronic lesions within the cranial cavity. Magnesium sulphate and sodium chlorid solutions, by bowel, for the relief of intracranial tension have been used in Dr. Charles H. Frazier's clinic for the last two years and the results of such use are reported on by Temple Fay, Philadelphia (*Journal A. M. A.*, March 8, 1924). They come to rely on the use of magnesium sulphate in preference to that of sodium chlorid excepting only in cases in which the tension of the brain, during operative procedure, necessitates immediate reduction of brain volume. Here the injection of 100 c.c of 17 per cent sodium chlorid solution, by vein, has been found to be prompt and effective in bringing about relief of the tension in almost every case. The use of magnesium sulphate for the purpose of dehydration has been shown to be almost twice as efficient as sodium chlorid, and obviated the danger of a secondary wave of tissue edema due to temporary salt retention. The respiratory rate is the best clinical guide to the degree of intracranial tension. If overdehydration is possible, as seemed evident in two of our cases, then any degree of intracranial pressure may be con-

trolled by sufficient use of magnesium sulphate, and the disfiguring operation and added risk of subtemporal decompression for relief of pressure becomes unnecessary in cases of acute cerebral tension.

—R—

Chlorin as a Therapeutic Agent in Certain Respiratory Diseases.

The value of chlorin as a therapeutic agent was investigated by Edward B. Vedder and Harold P. Sawyer, Edgewood Arsenal, Md. (Journal A. M. A., March 8, 1924), in the bacteriologic laboratory and clinically. A concentration of approximately 0.015 mg. per liter of chlorin was used. Most of the patients received a single treatment of one hour. A few received a second or even a third treatment on succeeding days. While the majority of patients were cured or improved by one treatment, many require several treatments. There seems to be little doubt that such chlorin treatment will completely abort a cold when taken sufficiently early, and in well developed cases it affords great relief. Acute bronchitis is practically always relieved. There is more difficulty in treating "head colds," because the swelling of the mucous membranes stops the air passages and prevents free access to the chlorin. In a number of cases, the nose was first treated by the authors with epinephrin, in order to shrink the mucous membranes and obviate this difficulty. They are inclined to believe that chlorin will be as effective in the treatment of influenza as it is in the case of the common cold. In whooping cough chlorin apparently is distinctly curative. Children who had had numerous daily paroxysms followed by vomiting, and were losing weight, after one or two treatments ceased to vomit, and the paroxysms were greatly reduced in number and force. Two cases were in adults and were undoubtedly cured, as the paroxysmal coughing ceased entirely following several treatments. It also seems probable to the authors that inhalation of chlorin will prove useful in many other conditions that they have had no opportunity to treat. An apparatus is described that is said to render this treatment available for trial by any physician.

—R—

A Skin Test for Susceptibility to Scarlet Fever.

In 1923, George F. Dick and Gladys Henry Dick, Chicago (Journal A. M. A., January 26, 1924), succeeded in producing experimental scarlet fever with an apparently pure culture of a hemolytic strepto-

coccus isolated from a case of scarlet fever. After experimental scarlet fever had been produced, attempts were made to produce skin reactions with the same culture that had caused the disease. In a series of 153 tests, some showed no reaction whatever. Others gave varying degrees of reddening and swelling about the site of the inoculation. The positive reactions usually began to appear from four to six hours after the inoculation. The reactions were observed at the end of twenty-four hours, and classified as negative, slightly positive and strongly positive. Intracutaneous tests were made in sixty-five convalescents from scarlet fever; sixteen persons with a history of scarlet fever, and seventy-two with no history of scarlet fever. The number of positive reactions in this series was 3, 1 and 37, respectively. Summarizing the results, the filtrate of the culture that produced experimental scarlet fever, when used in the proper dilution, gave positive or strongly positive skin tests in 41.6 per cent of the persons who had no history of scarlet fever. All of the convalescent scarlet fever patients tested showed negative or only slightly positive reactions. The action of the filtrate on the skin was inhibited by convalescent scarlet fever serum mixed with the filtrate before it was injected, or given intramuscularly before the test was made. In two instances in which it was possible to observe the test before and after an attack of scarlet fever, it was positive before the attack, and negative during convalescence. The skin test described bears a specific relation to immunity to scarlet fever.

—R—

Infections of the Lip.

Three fatal cases of lip infection are reported by Maurice Kahn, Los Angeles (Journal A. M. A., March 29, 1924). One patient picked open a pimple with a needle and squeezed it. He died thirty-six hours later. No necropsy was done. The second case gave the same history. Secretions from the wound showed *Staphylococcus aureus*. The patient died on the sixth day. The third patient with a similar history died on the tenth day. Kahn says that *Staphylococcus aureus* is almost invariably the infective agent in these cases. The fatal cases usually show cavernous sinus thrombosis or metastatic abscesses of the lung or in various parts of the body, with thrombophlebitis of the facial vein and its tributaries. It is pointed out that the reason for the fatalities lay in the abundant vas-

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cular drainage of the region of the lips, thus making more likely venous thrombosis. Having in mind also the absence of connective tissue spaces, it will be seen that in infection of the lip the infective agent is brought into immediate intimate contact with the venous plexus of the lip. The almost constant motion of the lips has a tendency to disseminate the infection early in the disease by what is a mild degree of squeezing or rubbing of the infection against the vein wall. Later on, when the swelling has become marked, the pain would of itself inhibit any great amount of motion. But before this stage has been reached, another factor has entered and one of supreme importance, i. e., the squeezing.

— R —

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for April 1, 1924.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society.....	Topeka, Kansas
Editor—W. E. McVey.....	Topeka, Kansas
Managing Editor—None.	
Business Manager—None.	

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society. E. E. Ebricht, Wichita, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases

where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relations, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVEY, Editor.

Sworn to and subscribed before me this 24th day of March, 1924.

EVANGELINE INGERSOLL,
Notary Public.

(Seal)

(My commission expires April 15, 1925.)

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Congenital Mitral Stenosis.

H. H. Donnally, Washington, D. C., (*Journal A. M. A.*, April 26, 1924), reports a case of developmental mitral stenosis combined with hypoplasia of the left ventricle and left auricle; rudimentary aorta and other developmental defects. The child, apparently was in perfect health at birth. Forty-three hours after birth, while in the nurse's arms, the baby suddenly became pale and limp; cyanosis developed, and the respirations became rapid, irregular and labored. She improved somewhat, the color at times being fairly good and the respirations less labored. A loud systolic murmur was then audible over the heart, loudest at the base and heard in the back. Death occurred suddenly when she was 57 hours old. The heart was malformed only in the sense that the chambers of the left side were extremely small and the aorta rudimentary, while the trunk proceeding from the right ventricle, after giving off the pulmonary arteries and the ductus arteriosus, apparently formed the thoracic aorta. Arterial blood was thus distributed, in great part, from the right ventricle to all the tissues. Aeration occurred only in that relatively small part of the blood which, reaching the lungs from quite large pulmonary arteries, could be returned by the very inadequate path of the mitral orifice and the rudimentary left ventricle and aorta. There was no demonstrable orifice between the left and right ventricles. Probably the greater part of the blood that passed through the lungs reached the right auricle through the foramen ovale.

R

THE CHICAGO SESSION**Fellows Should Have Pocket Cards for Registration.**

All Fellows who will attend the Seventy-Fifth Annual Session at Chicago, June 9-13, are urged to bring with them their 1924 Fellowship cards. These cards are necessary for prompt registration. Any one who has not received his 1924 Fellowship card should write for it at once.

Banquet for Section on Diseases of Children.

Dr. E. J. Huenekens, secretary of the Section on Diseases of Children, announces that the annual banquet for that section will be held at the Congress Hotel, Chicago, Thursday, June 12.

The Woman's Auxiliary of the American Medical Association.

The second annual meeting of the Woman's Auxiliary of the American Medical Association will be held in Chicago, June 10-13. All meetings will be held at the Edgewater Beach Hotel. The executive board will meet at 9 a. m., Tuesday, June 10. All national officers and the presidents of state auxiliaries compose the executive board of the Woman's Auxiliary. Wednesday evening, June 11, at 7 o'clock, there will be a subscription dinner. Visiting and local women are invited to register for this dinner. The general meeting will be held Thursday, June 12, at 9 a. m., at which time the reports from state auxiliaries will be heard and the election of officers will be held. The wives of all members in good standing in the American Medical Association are eligible to membership in the Woman's Auxiliary, and are invited to affiliate. Mrs. S. C. Red, 817 Caroline Street, Houston, Texas, is president.

American Medical Golfing Association

The tenth annual tournament and dinner of the American Medical Golfing Association will be held at the Olympia Field's County Club, Chicago, June 9. After thirty-six holes of golf, there will be a dinner for the members of the association and prizes will be awarded. Dr. James Eaves, San Francisco, is president, Dr. Fred Bailey, St. Louis, secretary-treasurer, and John Walter, 1507 Hinman Avenue, Evanston, Ill., is business secretary of the American Medical Golfing Association.

Fort Riley Reunion.

The Fort Riley Reunion Association will hold its annual dinner at the University Club, Chicago, Wednesday evening, June 11. Announcements have been sent to all physicians whose names appear on the rolls of the thirty-four companies of the M. O. T. C. from May 1, 1917, to July 15, 1918. Any physician who was at Fort Riley during the war as an instructor, student officer or member of the base hospital staff is cordially invited to attend. Dinner will be served at 7:30. Tickets are \$3. This is the fourth reunion of the Fort Riley M. O. T. C. and is expected to be the biggest and the best. At least 400 Riley men should be present. Colonel Bispham will be there. —*Journal A. M. A.*

KANSAS MEDICAL SOCIETY

Chartered by the Territorial Legislature of Kansas, February 19, 1859

PRESIDENT.....ALFRED O'DONNELL, M.D.....ELLSWORTH

Secretary.....J F. HASSIG, M. D.....Kansas City Treasurer.....GEO. M. GRAY.....Kansas City

Defense Board—Dr. O. P. Davis Chairman; Dr. D. R. Stoner, Ellis; Dr. C. S. Kenney, Norton.

Executive Committee of Council—Alfred O'Donnell, M.D., Chairman, Ellsworth; Dr. J. F. Hassig, Kansas City; Dr. Geo. M. Gray, Kansas City; Dr. O. P. Davis, Topeka; Dr. C. C. Goddard, Leavenworth.

Committee on Public Health and Education—Dr. M. O. Nyberg, Chairman, Topeka; Dr. C. Klippel Hutchinson; Dr. James W. May, Kansas City; Dr. F. H. Smith, Goodland; Dr. O. D. Walker, Salina; Dr. H. E. Haskins, Kingman; Dr. E. L. Morgan, Phillipsburg.

Committee on Public Policy and Legislation—Dr. W. S. Lindsay Chairman, Topeka; Dr. C. S. Huffman, Columbus; Dr. J. A. Milligan, Garnett; Dr. E. D. Ebricht, Pres. ex-officio; Dr. J. F. Hassig, Secy. ex-officio.

Committee on Hospital Survey—Dr. Geo. M. Gray, Chairman, Kansas City; Dr. John L. Evans, Wichita; Dr. W. M. Mills Topeka.

Committee on Medical History—Dr. W. E. McVey, Chairman, Topeka; Dr. W. S. Lindsay, Topeka; Dr. O. D. Walker, Salina.

Committee on Scientific Work—Dr. J. F. Hassig, Chairman Kansas City; Dr. H. L. Chambers, Lawrence; Dr. F. A. Carmichael, Osawatomie.

Committee on the Medical School—Dr. L. F. Barney, Kansas City; Dr. Wm. M. Mills Topeka; Dr. L. S. Nelson, Salina; Dr. C. H. Jameson, Hays; Dr. Alfred O'Donnell, Ellsworth.

Committee on Necrology—Dr. E. E. Ligett, Chairman, Oswego; Dr. J. F. Hassig, Kansas City; Dr. W. E. McVey, Topeka.

Members of Component County Societies are members of the Kansas Medical Society. Physicians residing in counties where no County Society exists may join the society of an adjoining county. Physicians residing where no County Society exists, who are members of a district or other independent society approved by the Council, may be admitted to membership.

ANNUAL DUES \$3.00, due on or before February 1st of each year.

Dues should be paid to the Secretary of the Component County Society, or, if not a member of a County Society, to the Secretary of the Kansas Medical Society.

OFFICERS FOR 1923

COUNTY	PRESIDENT	SECRETARY	
Allen	W. R. Heylman Iola	P. S. Mitchel, Iola	
Anderson	J. A. Settle, Westphalia	J. A. Milligan, Garnett	2d Wednesday
Atchison	E. T. Shelley, Atchison	W. K. Fast, Atchison	1st Wed. ex. July and August
Barton	Addison Kendall, Great Bend	L. J. Wheeler, Great Bend	1st Tues., an., April, June, October
Bourbon	R. Aikman Ft. Scott	W. T. Wilkening Ft. Scott	2d Monday
Brown	E. J. Leigh, Hiawatha	J. M. Robinson, Hiawatha	2d Friday
Butler	G. C. Hall, Eldorado	L. L. Williams, Eldorado	2d Friday
Central Kansas	D. R. Stoner, Ellis	L. V. Turgeon, Wilson	
Chautauqua	W. T. Courtwright, Sedan	W. L. McNaughton, Sedan	
Cherokee	R. C. Lowdermilk, Galena	J. D. Graham, Columbus	2d Monday
Clay	E. N. Martin, Clay Center	C. E. Earnest, Cay Center	2d Wednesday
Cloud	C. W. Caton, Concordia	Ross E. Weaver, Concordia	Last Thursday
Coffey	J. C. Fear, Waverly	A. B. McConnell Burlington	
Cowley	C. C. Hawke, Winfield	W. H. Rea, Arkansas City	1st Tues. except July, Aug., Sept.
Crawford	H. L. Church, Pittsburg	C. L. White, Pittsburg	3d Thursday
Dickinson	P. B. Witmer, Abilene	C. L. Heins, Abilene	
Doniphan	W. W. Carter, Wathena	W. M. Boone, Highland	1st Tuesda Jan., April, July, October
Douglas	W. O. Nelson, Lawrence	E. P. Sisson, Lawrence	1st Thursday
Elk	R. C. Hanner Howard	F. L. DePew, Howard	Called
Finney	G. R. Hastings, Lakin	W. J. Stilson, Garden City	
Ford	T. L. McCarty, Dodge City	W. F. Pine, Dodge City	Last Wednesday
Franklin	G. C. Mahaffey, Ottawa	W. L. Jacobus, Ottawa	
Harper		H. W. Gaume Harper	3d Wednesday, Mar., June, Sept., Dec.
Harvey		H. M. Glover, Newton	First Monday
Jackson	R. Robson, Mayetta	C. A. Wyatt, Holton	1st Wednesday, Jan. April, July, Oct.
Jewell	J. E. Hawley, Burr Oak	L. V. Hill, Randall	
Johnson	F. F. Green, Olathe	J. T. Orr Olathe	
Kingman	R. W. Springer, Kingman	A. M. Dick, Kingman	2d Thursday except summer months
Labette	J. H. Henson Mound Valley	D. R. Wilson, Mound Valley	4th Wednesday
Leavenworth	F. J. Haas, Leavenworth	J. L. Everhardy, Leavenworth	2d and 4th Mondays
Lincoln	A. M. Townsdlin, Barnard	Malcolm Newlon, Lincoln	2d Thursday
Linn	J. R. Shumway, Pleasanton	W. P. Irwin Pleasanton	2d and 4th Fridays
Lyon		S. P. Fulton, Emporia	1st Tuesday
Marion	S. N. Mallison, Hillsboro	S. P. Loomis, Lost Springs	2d Wednesday each month
Marshall		J. L. Eddy, Marysville	Last Thursday uly, Oct., Jan. April
Meade - Seward	Geo. Smith, Liberal	J. W. Messersmith, Liberal	
Miami	W. L. Speer, Osawatomie	P. E. Kubitschek Osawatomie	Last Friday
Mitchell		E. E. Brewer, Beloit	
Montgomery	L. B. Chadwick, Coffeyville	J. A. Pinkston, Independence	2d Friday
McPherson	C. R. Lytle, McPherson	F. L. Quantius McPherson	
Nemaha	F. R. Dillingham, Sabetha	S. Murdock Sabetha	Last Thursday every other month
Neosho	W. E. Royster, Chanute	E. A. Davis, Chanute	Second Monday
Norton-Decatur	H. O. Hardesty, Jennings	C. S. Kenney, Norton	Called
Osborne	J. E. Henshall, Osborne	S. J. Schwaup, Osborne	
Pawnee		E. A. Reed, Larned	2d Tuesday
Pratt	Athol Cochran Pratt	G. E. Martin, Cullison	1st Monday
Reno	J. J. Brownlee Hutchinson	Louise Richmon, Hutchinson	4th Friday
Republic	J. W. West, Narka	H. D. Thomas, Belleville	2d Thursday in November
Rice	H. R. Ross, Sterling	O. W. Schmidt, Lyons	Last Thursday
Riley	R. R. Cave, Manhattan	W. M. Reitzel, Manhattan	2d Monday
Rush-Ness	N. W. Robinson, Bison	L. A. Latimer, Alexander	Called
Saline	W. E. Fowler, Brookville	R. E. Cheney, Sallna	2d Thursday
Sedgwick	J. W. Cheney, Wichita	W. G. Gillett	1st and 3d Tuesdays
Shawnee	W. H. Weldling, Topeka	E. G. Brown, Topeka	1st Monday
Smith		V. E. Watts, Smith Center	Called
Stafford	J. J. Tretbar, Stafford	J. T. Scott, St. John	2d Wednesday
Sumner	Earl Clark Belle Plaine	T. H. Jamleson, Wellington	Last Thursday every quarter
Washington	H. D. Smith, Washington	W. M. Earnest, Washington	
Wilson	A. C. Plack, Fredonia	E. C. Duncan Fredonia	2d Tuesday Dec., March, June, Sept.
Woodson	O. E. Robinson Yates Center	S. H. Murphy, Yates Center	
Wyandotte	L. G. Allen, Kansas City	L. L. Bresette, Kansas City	Every 2d Tues. ex. summer months

THE JOURNAL

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PRESIDENT'S ADDRESS

Medical Education in Kansas

E. D. EBBRIGHT, M.D., Wichita

Read before the Annual Meeting of the Kansas Medical Society at Wichita, May 7 and 8, 1924.

When you elected me President of the Kansas Medical Society at the annual meeting one year ago, you knew full well that you would be compelled, one year hence, to listen to whatever I might wish to say to you in a presidential address. And when I accepted the office I knew it would be expected of me, as one of my few duties, that I prepare such a paper and thus fulfill my part of the contract. For my part I am glad of the constitutional provision that requires your presiding officer to speak at this time, for it gives me the opportunity to say some things that I think should be said and under such circumstances that they must be heard.

First of all I wish to express my deep appreciation of the honor you conferred upon me when you elected me to this office. Next to being elected president of the American Medical Association I can conceive of no greater. I desire at this time to thank my fellow officers, and the members of the Council for their uniform kindness and for their assistance in the year's work. To me our relationship has been most pleasant and altogether I shall always consider the confidence reposed in me as the high spot in my professional career.

An occasion of this kind is no time for self congratulation or self advertisement. I do not wish to occupy your attention with a discussion of some technical or scientific subject pertaining to my own special line of work, worthy as that might be; but rather I wish to call your attention to some fundamental things that are of vast importance to every physician in the state and as well to every citizen of Kansas.

I have chosen as my subject "Medical Education in Kansas"; and I have chosen it because I desire to acquaint both the physicians and the laymen of the State with some educational plans that have been developed and to enlist their support in the undertaking. I have chosen it also, because I desire to make clear if possible, the relationship between medical education and the general well being

of the citizenship of Kansas. I can not hope to have any success in the former unless I can succeed in the latter. To have any reasonable chance of accomplishing my purpose it will be necessary that I depart from the usual presidential address and direct my remarks principally to the laymen, the taxpayers of the State, rather than to the medical profession alone.

It should not be necessary in speaking to Kansas people about educational matters to begin with an apology of any kind and I do not purpose to do that. I desire to call your attention to some things that scientific medicine has done for the welfare of society and to explain further plans to the same end, knowing that once Kansas people are convinced of the worthiness of the cause they will respond in the future as they have always done in the past to any effort to advance the general cause of education.

Our problem of medical education is no different in this State from the general problem existing over the entire country, except that we have further to go than some of our neighboring states that have met and overcome some of the same difficulties that now confront us. That they have been met and overcome should encourage us, for what others have done we can do. We have this as an advantage, that we may profit by their experiences. I wish to call particularly to your attention this same problem as it exists in Colorado, Iowa and Minnesota, states that have the same type of citizenship as Kansas, that have about the same population and the same wealth and general conditions that in every way correspond very closely to conditions in Kansas. Each of these states has either completed plans or is about to complete them for medical education that make our efforts seem pitiful by comparison. I know of no reason why Colorado should spend \$10,000,000 for a medical school and its associated activities and Kansas complain when a \$2,500,000 program is urged. Minnesota and Iowa have gone even further than Colorado. As Kansans are we satisfied with such comparisons?

A review of the statistics shows a remarkable improvement in medical education in the United States since 1904. In that year there were 160 medical schools of all kinds

with a combined student attendance of 28,142. Of these 160, 33 were irregular and of low grade. In 1922 the number of schools had been reduced to 81, with an attendance of 16,000. Of these 81, only seven were hopelessly of low grade and since 1922 three of these have been discontinued, leaving only four in the unsatisfactory class. This decrease in the number of schools has been brought about in some instances, by the consolidation of two or more into one strong institution. Some have been adopted by universities and thus strengthened by the connection; while others have been abandoned altogether because of their unwillingness or inability to meet the high standards demanded. In 1904 only eight per cent required terms of nine months. Today over sixty per cent require that for a year's work. In 1904 three years was the length of the entire medical course. Today there is not a reputable medical school in the United States that does not require four years to finish the course and seven require five years before the student may obtain his degree. Prior to 1904 only a few schools were answerable to any authority for the character of work done. The medical school of that time was organized and controlled by a group of physicians who considered such college connection a legitimate method of advertising and who expected material returns from referred cases sent them by their graduates. When some particular school thus organized and thus operated grew into a profitable venture other physicians becoming jealous and longing for the prominence that such connection gave, organized a new school and began to advertise for students. The result was too many irresponsible schools and too many poorly prepared physicians turned loose on society. We do not mean that there were not a goodly number of capable physicians developed by this method, but we do mean certainly there were far too many poor ones. During this time very little was required of the matriculant in the way of education or general fitness. About the only certain requirement was an ability to pay the tuition fee.

However, about 1904 the medical schools of the country and the physicians themselves recognized the unsatisfactory condition of medical education and under the direction of the American Medical Association began to move for better schools and higher standards. A council on Medical Education and Hospitals was formed and today every school is graded according to the character of work done. This supervision has proven to be even more efficient than hoped for at the beginning. This movement has continued until today we have in the United States the best

medical schools in the world. We do not insist that they are perfect, there is yet room for improvement, but the success of twenty years leads us to believe that the improvement will continue. We have this as our badge of honor, that no improvement that has taken place has been forced upon us from outside influences. We ourselves, have seen the necessity for a change, and have had the courage to insist that it take place often against the bitter opposition of a society in whose interests these reforms were being attempted.

Desiring a part in this general program for better medical schools and better medical education the Medical Department of the State University was formed in 1905 by a consolidation into one institution of the Kansas City Medical College, the College of Physicians and Surgeons and the Medico Chirurgical College all of Kansas City, Missouri, and thus established was located at Rosedale, part of greater Kansas City. In 1913 the Kansas Medical College located at Topeka was absorbed. Since that time there has been no other reputable medical school either in Kansas City, Missouri, or in the State of Kansas. It would be an inexcusable omission if we did not mention the pioneer work done along these lines by Dr. Williston of Lawrence. In 1896 he began a two-year medical course in connection with the State University. By the year 1899 this had developed until the work done was recognized by some of the great Eastern medical colleges. This really was the nucleus around which the institution was established, and today we gladly recognize our obligation to Dr. Williston. The first class was graduated in 1906 and each succeeding year the institution has sent out a number of well trained men to assist in taking care of the health of this and surrounding states.

The school is rated by the Medical College Council of the American Medical Association as a Grade A institution. Under very serious difficulties the work has been kept to this high standard and the results obtained reflect great credit on the few who have had the vision to see and the courage to do.

This then is our problem. We have a medical school that has been in existence almost twenty years, the student body is as fine as can be found in any similar institution in the country, the instruction given is satisfactory and the young physicians graduated are a credit to the institution and to the State; but the physical resources of the institution are pitifully inadequate to meet the demands. These consist of three old dilapidated buildings located at Rosedale that have served for years as a hospital, dispensary and medical college proper; and equipment that is not in

keeping with the dignity of Kansas. The quarters for the nurses in training are so shamefully inadequate that the wonder is that the institution can find young women willing to undergo such hardships and inconveniences that are not necessary at the present time in other institutions. The fact that we have any nurses at all speaks very well for the spirit of the faculty and the hospital authorities. A new site of eleven acres has been purchased in a much better location and plans have been completed by the best hospital architects and hospital experts. These call for an expenditure of \$2,500,000 for buildings and equipment. The first building is now finished at a cost of about \$350,000. It is very complete and satisfactory for the purpose intended, that of an administration building, but it is hopelessly inadequate to meet all the demands of a modern medical center. Until further units are built the work must be divided between this building and those of the old group a mile or more away. This will make it, not only inconvenient but impossible to do more than make-shift work. At the last legislature further appropriations were asked for, but they were refused and the Governor has publicly stated that he is opposed to any additional expenditures at this time.

We as citizens now have to decide whether it is to our best interests to continue our medical work as it now is in its present inadequate state; discontinue it altogether and send our young men and young women who desire to study medicine to other states for their education; or what we believe better than either of these, demand of the politicians and legislators who are holding up the enterprise that they respond to the best interests of the citizens of this state and allow us to develop a medical school worthy the state of Kansas and one that will give our young people an opportunity to obtain a medical education at home equally as good as they can get any where in the world. Demand of them that they get out of the way of a program that has for its only aim the happiness and physical well being of the citizens of this state.

But they tell us that the people of Kansas are opposed to the expenditure of any more money for the institution and that this is a time for the strictest economy. We do not believe that if Kansas people understand the proposition in its entirety, understand the benefits that will come from this completed and fully functioning institution they will be opposed to the program, nor do we believe they will be influenced by the false cry of economy where no economy is intended. Instead of being satisfied with a \$2,500,000 institution Kansas ought to be ashamed of any

plans that call for an expenditure of less than ten million dollars. It will cost this much to build and equip a modern institution in keeping with Kansas ideals and Kansas resources, and one from which the maximum benefits from such an institution may be expected. I feel that our aims have been set too low and I have enough confidence in Kansas people to believe that once they are acquainted with the facts and with the necessities, they will have much the same feelings.

I wish at this time to call the attention of as many Kansans as possible to a very significant article that appeared in one of our local papers under date of April 24, just two weeks ago. It appears to be the result of an interview with the Governor and seems authentic. It stated that in the year 1923, 4,931 residents of this state died of preventable, communicable diseases; and that the expense to the citizens of Kansas from these diseases in actual dollars and cents was \$2,465,500. Indeed, these staggering statistics have so excited the governor that he has issued a proclamation setting aside an entire week for the consideration of means to prevent such occurrences in the future. Prominent citizens are requested to spread the "gospel," the pulpits of the state are to be utilized; the radio is to be called upon to broadcast speeches by noted statesmen; every effort is to be made to have the people informed of the facts by leading business men. And this week, May 5th to the 10th happens to be the week selected. If this is not a delicious bit of irony we know not the meaning of the word. 4931 people of our state die in one year from diseases that the medical profession has clearly shown how to prevent, \$2,465,500 spent by the people of Kansas in one year as a result of these diseases, and when we beg of the Governor and of the legislature for \$2,500,000 to build and equip an institution similar to those where all the knowledge that has made these diseases preventable diseases, has been gained; and where undoubtedly in the future scientific investigation will put other diseases in the same class, we are gravely informed that the people of Kansas are not in favor of such a large amount of money for such purposes and that this is a time for the strictest economy. Could anything be more fatuous? It would seem to any one except a politician that a more practical way to keep people from dying than the issuing of proclamations would be to give some heed to the advice and desires of those whose business it is to study disease and to prevent it and to utilize the means they have provided by years of painstaking effort.

This is a subject on which we like to dwell; the high privilege that the medical profes-

sion has always had and never abused, of helping humanity in its struggle to make life more enjoyable, of binding up, when necessary, its wounds and healing its hurts. There has never been a single hygienic law formulated except as the result of some doctor's work; never a sanitary measure advocated, that was not worked out in some physician's laboratory. There is not one of the public health measures, that are so popular today because they have added so much to human efficiency, that is not directly traceable to visions and accomplishments of the doctor. The war could not have been won except by the work of the medical department. The Panama Canal was not dug by steam shovels but by the microscope and the test tube. It required the scientific physician to discover that the virus of yellow fever was carried by the mosquito and when means were found to stop the breeding and growth of this insect, the supposed insurmountable problems of the rivers and the mountains of the Isthmus became merely so many cubic yards per day. During the past fifty years the average span of human life has been increased twenty years, and while most of this is to be accounted for by the decrease in infant mortality, it has been a worthy attainment and is to be credited to the doctor. The mortality of diphtheria by the research of the doctor has been reduced to almost nothing. And now, as the result of a very recent discovery by a doctor working in the laboratory of a medical school, such as we hope to see here in Kansas, diabetes has been shown to be amenable to treatment. Who can estimate the economic value to Kansas people of Insulin. If it were not for the doctors twenty Kansas citizens would die every day of the year from appendicitis alone. Those of you who are old enough may remember the great number of people who formerly died from inflammation of the bowels. Can you count in dollars and cents the gain to society of the twenty who do not die today because the physician has discovered that the inflammation of the bowels was not inflammation of the bowels but was appendicitis, and has perfected the technic in the treatment of this disease to the point where the mortality is practically nil.

What we are trying to show is the great lack of information possessed by those who are complaining the loudest about the cost of such an institution as we have in mind for Kansas; and what the results would be today if the people of other times and of other states had felt about spending money for such purposes as we are told Kansas people feel today. Will you pardon a very homely illustration? Suppose some citizen living in the extreme western part of the State, who we

are told objects to paying taxes to support a medical school on the ground that it is taxation for a special class and can not in any way benefit him, should be so unfortunate as to have a child stricken with infantile paralysis, a disease that at present is almost certain to leave permanent effects and in many instances leaves the victim a hopeless cripple. And suppose that in the research laboratory of the Medical School at Rose-dale, scientific investigators discover the specific organism that causes this disease and produce a serum that will do for this condition what antitoxin has done for diphtheria. And suppose the local physician in this case receives a supply of this serum from the laboratory and administers it to the child, with the result that it completely recovers, would he still think he had paid taxes for a useless institution? Please understand me. I am not trifling. This is not merely a supposition for this very thing will soon happen. If it does not occur in our medical laboratory it will in that of some state that is not so easily influenced by the cry for economy. Of course, our children will profit wherever the discovery is made—doctors have a habit of not patenting their efforts, but as Kansans would we not be proud if the thing should occur in our State?

While the chief purpose of a Medical School is to train and equip young people for the profession of medicine, if it is functioning to its utmost capacity in its associated activities it has the power to touch and influence society beneficially in numerous ways. It should be the health center of the state where every citizen may feel that every effort is being made to protect him and those dependent on him from disease. It should include a research department under competent scientists where diseases not yet understood or controlled are constantly being investigated. It should offer the best of training in its hospital wards for young women who wish to enter the profession of nursing. It should provide hospital accommodations where those not able to pay the fees demanded by private institutions may receive the best of care. It should be a clearing house, a library, a scientific home where every physician in the state may feel free to bring his individual problems and have them solved. In fact it should be the heart of the state with its vessels carrying to every part of its anatomy the vitalizing fluid of health and happiness. At present our heart is suffering from a very severe attack of disease, but we have the hope that it may prove to be only functional and with more and better nourish-

ment may develop into a normal healthy organ.

A very serious problem connected with present day medicine is that of the rural physician. One of the greatest drawbacks to life in a small town or in the country is the lack of competent medical attention. Since the war there has been an influx of physicians to the larger towns and cities with a corresponding drain upon the smaller places. This constitutes a very serious condition. One can not much blame the doctor for desiring the advantages which the city affords and for seeking to escape the hardships of a country practice, and yet the people living in the country must have medical attention. Three things are to have an influence in attaining this end. First, the increased conviction by the physician himself that the life of the doctor is not one of ease but of service. However, doctors are but human and material incentives must be added. The second thing that will help to solve the problem is the automobile and good roads. The third and most important is a great medical school of our own, that will furnish us with most of our future doctors and that will keep open always a line of communication between the country doctor's office and headquarters. Everything else being equal, the Kansas boy properly prepared, receiving his medical education from our own medical school will be more of an asset to the locality in which he decides to practice than an outsider coming from some Eastern University. He will not be compelled to become acclimated, but will speak the Kansas language and understand better the people among whom he chooses to live. During the year 1922, 284 Kansas students were studying medicine in the different schools of this country. Less than one-half of these, 136 to be exact, were enrolled in our own school. In a great many instances this was because they could not be accommodated at Rosedale. It would be unfair, both to the student and to the institution to accept a greater number than could be properly taken care of. There has been some complaint by physicians of the state over this condition of things, but it can not be helped at present with our limited facilities. That is one reason why we are urging the completion of our institution.

One of the reasons that there has not been more progress made is the general lack of interest shown by the physicians of the State. Indeed it has been stated as the main reason why no appropriation was made at the last legislature, that the physicians of the State were not in sympathy with the project. I shall not insult your intelligence by discussing this for we know it is not true. However, it

may be true that our lack of interest has furnished an excuse for the statement to be made.

The relationship of the Medical School to the profession should be made plain. We who will soon pass from the stage recognize that there must be developed new doctors to take our places when we are gone, we hope they will be better doctors than we have been; but we must insist that in their development nothing be done to hasten our departure. The members of the faculty of the institution must not be under the necessity of foraging for business. There is enough legitimate benefits accruing to the teacher or professor in a medical school, enough patients coming as clinical material from all over the state, that it should not be necessary for him to use his position in the effort to attract patients that by right belong to other physicians of the State. If it be true that the main purpose of a medical school is to train physicians, then it is also true that the relationship of the faculty member should be limited to this same purpose. The hospital patients that will occupy the beds of the hospitals connected with the college will be charity cases in the great majority of instances—patients who are able to pay their way do not willingly lend themselves as clinical material. It is perfectly proper that the college use these charity cases for the benefit of the students. The physicians of the state will gladly make an effort to have such enter the hospital, but they also have a right to demand that no effort be made by the faculty members to use their position to draw patients that are not legitimate teaching material to their own private clinics. We have a right to ask that they exhibit the same fairness and ideals of service as we expect from private members of the profession. Possibly we have put this crudely and there may be no occasion for the remarks but we have heard enough of the matter in conversation with others to make us feel that the thing should be said. We have no axe to grind, no ambition to satisfy. We merely have a sincere desire to do what we can to further the interests of an institution which we believe to be for the best interests of society and which will provide the most certain means for the development of the highest type of physician for the future.

And after all that is the important thing. We have never allowed ourselves to become alarmed over the quack, the charlatan or the incompetent. There never was or never will be any danger of any of these usurping the position of the regular physician. Honor is easily held where honor is deserved. The most certain way to retain and strengthen our advantage over the get-rich-quick type of irresponsible healers, is to produce such a

superior physician that it will be apparent to every one which is the real physician and which the pretender. How can this be done, except by having the very highest type of schools where the student not only may receive the most scientific education but may have in addition the inspiration that comes from his association with his teachers representing the highest ideals of our profession. Feeling that our school will so represent all that is high and noble in medical education we ask the members of the Kansas Medical Society to lend their influence in every possible way to the undertaking.

In closing I wish to make some recommendations that appear to me, after careful thought, to be entirely reasonable and necessary if the school is to grow to the point where it will meet our hopes. While these ideas are not necessarily original with me they express my own convictions of the needs of the institution uninfluenced by the wishes or opinions of any one connected with it in an official capacity. Possibly I have gone even farther in these recommendations than those connected with the institution have thought it wise to go, but I do not see how we can make any progress with less.

We recommend to the people of Kansas and to those in authority:

1. The purchase of additional ground in close proximity to the eleven acres now owned, before the price becomes prohibitive, in order that other hospitals and organizations that will naturally follow as the project grows, may be accommodated and that we may safeguard the institution from the presence of undesirables.

2. The adherence of the institution to the highest possible standards, making so soon as it may seem best, the possession of an A. B. or a B. S. degree necessary for entrance.

3. That a department of Dentistry be established as a part of General Medicine. These are so closely related that there should be no need for separate institutions.

4. The building, at the earliest possible moment of three additional units, a dispensary, hospital pavilions and a nurses home. The need for each of these seems to me to be imperative.

5. The consolidation at Rosedale of the entire work of the Medical Department so soon as the building program will permit. This will save duplication and will have much to do with preserving the university spirit so essential in the life of the student.

6. That control of the educational institutions of the State, including the Medical Department be separated from any connection with the penal, correctional or charitable activities of the State. There can be no possible

community of interest between a College of Liberal Arts and a Penitentiary; between a Normal School and a Reformatory for young criminals. Of all the bad laws passed in the state of Kansas the act of 1917 that provides that the criminal, the potential criminal, the insane, the victim of poverty and the healthy normal student, shall be under the direction and control of the same board seems to us to be the worst and one utterly without reason or excuse. The education of our young people is too sacred a thing to allow it to be made a matter for political patronage. Instead of the present law we would suggest the passage of a law that would provide that the Education Institutions of the State be controlled by a "Board" composed of nine members, no three of whom may be appointed during any one governors term of office. They to serve without pay and to be selected for their fitness and for their belief in the service ideal. A paid secretary or manager should be appointed by the board answerable to it and with his duties clearly defined. We are wondering if a plan of management similar to the city manager plan now in effect in some of the cities of the State would not be a very happy solution of the problem.

We should like to see each of these recommendations receive your endorsement and support. The first five have to do entirely with the medical department and will have to be worked out through regular channels. In regard to the last recommendation, that of the control of the educational institutions of the State, we should like to see some action taken, not by the house of delegates alone, but by the entire membership of the society. We feel that not only the physicians of the State but business men and members of other professions will agree with us as to the desirability of a change in this law.

—R—

The Frequency and Types of Irregular Pulses

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A fairly accurate idea of the frequency and types of irregular pulses may be obtained from the 1,162 electrocardiograms on which this study has been made. Five hundred and thirty-eight (45.2 per cent) of the patients represented in the electrocardiograms had irregular pulses.

PHYSIOLOGY AND ANATOMY

The mechanism of the mammalian heart rests upon two well differentiated structures: (1) the functional bridge between auricles and ventricles, namely, the auriculo-ventricular bundle, and (2) the sino-auricular node. The heart beat normally arises in this node.

The auriculoventricular node of Tawara is the origin of the junctional system. The node is located in the lower portion of the auricular septum. It consists of a few small muscle fibres arranged fanwise, and is richly endowed with nerves. It forms the upper pole of the auriculoventricular bundle.

The auriculoventricular bundle pierces the auriculoventricular ring, and near the upper borders of the membranaceous septum breaks into a right and a left branch. These branches course along the septal walls of the corresponding ventricles, and, after breaking into the subendocardial network of Purkinje, are distributed to the ventricular muscle. This system carries and distributes the impulses between auricles and ventricles, and in certain instances in the reverse direction.

The sino-auricular node, or node of Keith and Flack, in the human heart is located in the upper limits of the sulcus terminalis at the junction of the superior vena cava with the right auricle. This node consists of fine spindle-shaped interlacing muscle fibres, which are imbedded in a dense meshwork of connective tissue. The node is richly supplied with inhibitory nerve fibres by the right vagus nerve.

The five cardiac muscle functions—rhythmicity, contractility, excitability, conductivity, and tonicity, are special attributes of particular regions of the heart. If the controlling cardiac impulses are initiated in an abnormal manner, the derangement is to be regarded not necessarily as a disturbance of the function of rhythmicity, but as a disturbance of the functions of the sino-auricular node. Likewise, disturbances in the transmission of the contraction wave in its progress from auricle to ventricle must be regarded, not as a disturbance of conductivity, but rather as a derangement of those special tissues forming the paths through which the contraction wave flows. The principles of derangement are the same for all of the functions of cardiac muscle.

Each contraction of muscle is associated with the production of electrical phenomena. The electric waves produced by contraction of heart muscle have been designated in electrocardiography by special titles. The auricular contraction has been designated the P wave. The second phase of the cardiac cycle is that preceding the ventricular complex, and is known as the Q R S wave. The time interval from the beginning of P to the beginning of R is spoken of as the P-R interval, and normally does not exceed 0.22 seconds. The time interval of the Q. R. S. is not normally greater than 0.08 seconds, and represents the conduction wave in the auriculoventricular bundle. The final wave is produced prob-

ably by the ventricle, and is called the T wave of the cardiac cycle. This normally occupies about 0.28 seconds¹. The period from the end of T to the beginning of P is the diastolic period of the heart. Its length varies with the rate of the heart beat.

The electrocardiograph registers by photographic attachments, the electrical changes occurring in the heart during normal and abnormal contractions, and is the final court of appeal in all patients presenting irregular pulses. To interpret the electrocardiogram the physiology and anatomy of the heart musculature must be kept in mind.

TYPES OF IRREGULAR PULSES

The types of irregularity of the pulses are grouped under (1) Premature contractions, (2) Auricular Fibrillation, (3) Auricular flutter, (4) Sino-auricular block, (5) Heart block, (6) Paroxysmal tachycardia, (7) Respiratory arrhythmia, and (8) Alternating Pulse.

PREMATURE CONTRACTIONS

Premature contractions, or extrasystoles, are responsible for the majority of those pulse disturbances, which are usually expressed as intermittence. They are abnormal contractions of the heart, which generally spring from some region of the musculature other than the normal pacemaker or sino-auricular node. In this study 267 patients (22.2 per cent) had irregular pulses due partially or entirely to premature contractions. Of the irregular pulses, 49.6 per cent were due to premature contractions. There are three types of premature contractions: (1) ventricular, (2) auricular, and (3) nodal.

PREMATURE CONTRACTIONS OF VENTRICULAR ORIGIN

The disturbance of the rhythm is as a rule limited to ventricles. The electric complexes which represent the premature contractions are known to be ventricular, because they are of the same duration as the normal ventricular complexes in the same subject. They antecede and usually replace the regular responses of the ventricle, thereby disturbing the rhythmic action of the heart. The form of premature ventricular complexes is abnormal. The auricular action and form remain undisturbed. After each premature beat there is a prolonged "compensatory pause" during which the ventricle waits for the next auricular impulse. The compensatory pauses are absent if the rhythmic auricular impulse finds the ventricle already in contraction. This is due to the failure of heart muscle to register the influence of a second stimulus while in a state of contraction. If the heart is beating slowly and the extrasystolic beats of the ventricle occur very early in the T-P interval, the extra ventricular beat may term-

inate before the next auricular impulse arrives. Under such circumstances the premature beat does not replace a normal ventricular event, but is an added phenomenon in the heart cycle and is spoken of as an "interpolated extrasystole."

In this series ventricular extrasystoles occurred in 139 (11.9 per cent) electrocardiograms. In 21 instances they were associated with auricular fibrillation; in 13 instances with auricular extrasystoles; ventricular, nodal and auricular extrasystoles were associated in two instances; with nodal in six; and in one instance with sinus arrhythmia.

PREMATURE CONTRACTIONS OF AURICULAR ORIGIN

When a new impulse is born in the auricle, the disturbance is never confined to this chamber. The premature auricular contraction awakens a response in the ventricle. A study of the confirmation of an auricular premature beat shows that the ventricular portion has a perfectly normal outline as a rule, but the representatives of the auricular impulses are inverted because impulses are ectopic in origin. Usually, the diastole which follows a premature auricular contraction is not compensatory; it is too short, and consequently the fundamental rhythm of the heart is disturbed. When a premature beat arises in or near the sino-auricular node, then the whole premature electric curve is of normal form. Auricular extrasystoles occurred in 113 (9.7 per cent) instances. They were associated with ventricular in 13 instances; nodal and ventricular in two; with nodal in three; and with sinus arrhythmia in three.

PREMATURE CONTRACTIONS ARISING IN THE JUNCTIONAL TISSUES

A study of the confirmation of the representatives of junctional or nodal extrasystoles shows an undisturbed auricular rhythm. This is only possible because the extra contraction arose below the auricle. They have their origin above the main division of the auriculo-ventricular bundle, for the ventricular complexes have physiological outlines. The fundamental change is in the P-R interval, which may be lengthened, shortened, or apparently absent. The ventricular complex is followed by a compensatory pause. Nodal extrasystoles occurred in 15 (1.2 per cent) instances. They were associated with ventricular and auricular in two; ventricular in six; auricular in three; and with sinus arrhythmia in one.

AURICULAR FIBRILLATION

To Mackenzie^{2,3} belongs the chief credit for unravelling the mysteries of a type of pulses which were ill understood before his studies. The condition was originally spoken

of as the mitral pulse, *pulsus arrhythmia*, and *pulsus irregularis et perpetuus*. Fibrillation of the auricles is the supreme disorder of the heart beat, which is compatible with life. The muscle of the auricles, in fibrillation, although extremely active, is incoordinate. It has lost the power of driving blood into the ventricles. The normal impulses which are transmitted to the ventricle are submerged and replaced by rapid impulses which are derived in a haphazard manner from the quivering muscle of the auricle.

Auricular fibrillation is never complicated by other perversions of auricular rhythm, but the heart which exhibits it may display any other type of disorder at the same time. The T wave in fibrillation may show inversion or aberrant types of complexes may occur when one or the other bundle branch is damaged.

Fibrillation, though usually a chronic and persistent disorder, occasionally occurs in short paroxysms, or may terminate a period of auricular flutter.

Auricular fibrillation with regular action of the ventricle may occur in the presence of complete auriculo-ventricular block, but in practically all instances the pulses are irregular in force, rate, and space.

Auricular fibrillation occurred 115 (9.7 per cent) times. In 21 instances it was associated with ventricular extrasystoles, and in one instance with flutter, as an alternating phenomenon.

AURICULAR FLUTTER

Auricular flutter designates extreme acceleration of the auricular action. Flutter, as a rule, persists for months or years when once established, but may occur in short paroxysms.

The auricular rate in flutter is so rapid, that the ventricle is rarely able to follow it; so that most patients who exhibit flutter also exhibit heart block. The grade of the flutter is generally such that only the alternate auricular impulses stimulate the ventricle, but any grade of block may be present. The ventricular rate may be slow, but in most patients with flutter the ventricular rate is rapid and usually one-half that of the auricular.

The auricular waves, when the chambers are in a state of flutter, are expressed as a series of evenly spaced waves.

Flutter may pass spontaneously into fibrillation, but more commonly the change is induced by digitalis administration.

In this series flutter occurred twice. In one instance it alternated irregularly with fibrillation, and in another was a part of 3:1 block.

HEART BLOCK

Heart block is divided into partial and

complete. In partial block the P-R interval is delayed beyond 0.22 seconds, and is manifested in a heart which beats regularly. The simpler form of heart block is shown in cases where there is occasionally an absence of the ventricular complex in the electrocardiogram. The auricular wave is present, but it stands alone, and evenly spaced from other auricular beats. The ventricular beats are not evenly spaced for the first two ventricular contractions after the dropped beat. The heart action is irregular, and the pulse in consequence is irregular. When complete dissociation of the auricles and ventricles exists the pulse is generally perfectly regular and slow. Both parts of the heart beat rhythmically and independently.

Complete block occurred once in this series, and was associated as a 3:1 block with auricular flutter in one instance. There were five cases of partial block. One of these latter patients also presented extrasystoles of auricular origin.

RESPIRATORY ARRHYTHMIA

There are a number of closely related heart irregularities which are due to variations in the rate at which the impulses are generated at the physiological pacemaker. A notable example is an irregularity of respiratory origin in which there is a gradual acceleration during the inspiratory phase and a fall of rate during the expiratory phase. In young subjects it is a normal phenomenon. During the other periods of life, allied irregularities occur in which the whole heart participates, but in which there is no constant relationship to the acts of breathing. These irregularities are grouped under the term "sinus arrhythmia," and are brought about by alternation of vagal tone. There is a normal sequence of chamber contractions, but there is an irregular disposition of the beats. The diastolic periods are of varying lengths.

Sinus arrhythmia occurred in forty (3.4 per cent) instances; in one instance it was associated with nodal extrasystoles; once with ventricular; and three with auricular.

SINO-AURICULAR HEART BLOCK

In this condition the heart action is slow, or becomes so abruptly, and returns to a more rapid rate abruptly, especially on exertion. Knowledge concerning this irregularity is very scant. In some patients it is associated with auriculo-ventricular heart block. It generally manifests itself in one of two ways by producing intermittences of the whole heart, or by leading to steep falls of heart rate. When a single heart beat is lost in the electrocardiogram, the length of the longest cycle is usually somewhat shorter than two cycles of the natural rhythm. Permanent slow action of the whole heart may be due

to this disorder, and such a heart presents auricular and ventricular complexes of normal origin. Sino-auricular block occurred in one instance in this series.

ALTERNATION OF THE HEART

When alternation of the heart is present, and is displaying itself in the arterial pulse, the electrocardiograms do not show it always. On the other hand, alternation of amplitude may be present in the electrocardiogram and not demonstrable in the pulse. This was shown in one patient in this series, but was not a constant finding.

PAROXYSMAL TACHYCARDIA

Paroxysmal tachycardia may be associated with a regular or irregular pulse. In either event the heart rate is always rapid. The types of paroxysmal tachycardia are (1) simple paroxysmal tachycardia, (2) paroxysmal auricular flutter, (3) paroxysmal auricular fibrillation, and (4) ventricular ectopic tachycardia. If the latter is a pure type the pulse is regular. In this series simple paroxysmal tachycardia occurred in two instances; paroxysmal auricular fibrillation twice; and paroxysmal auricular flutter once. It is impossible clinically to interpret an attack of tachycardia without an electrocardiogram. Following the attack an electrocardiogram should be made to aid in the interpretation of the ones made during the attack.

COMMENT

Irregularity of the pulse is a matter of importance to the patient who is conscious of the irregularity. The electrocardiograph differentiates with absolute accuracy between irregularities of importance and those without importance. If judgment is to rest on the character of the pulse as to the nature of the irregularity, extrasystolic arrhythmia and auricular fibrillation should receive first consideration, and in the order mentioned.

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—R— A Mental Hygiene Clinic

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For two and a half years the Kansas Mental Hygiene Society and the Health Department of the City of Topeka have co-operated in maintaining a Mental Hygiene Clinic. This clinic constitutes the neuropsychiatric division of the Topeka Municipal Clinics, directed by Dr. Earle G. Brown, health officer, and under supervision of Health Commissioner, Robert McGiffert. It is a free clinic

held regularly every Wednesday afternoon for the diagnosis and treatment of nervous and mental illnesses.

This report covers the activities of this clinic from April, 1922, to December, 1923, a previous report having summarized the year's work ending in April, 1922.*

*"Mental Hygiene," Journal Kansas Medical Society, December, 1922.

In all, over 250 different cases have been seen so far, 153 of them during the period of this report. An attempt is made in every case to find out who referred the patient to the clinic, or where he found out about it. The following are the sources of reference given by the cases covered in this report:

Other departments of clinic	39
Private physicians	34
Provident Association	23
Public Health Nursing Association	12
Other patients	8
City Nurse	5
County Red Cross Nurses	5
School Principals and Teachers	3
Police	2
Children's Home Society	2
School Nurses	2
Kiwanis clinic at Lawrence	1
Newspaper	1
Unknown	16

153

A unique feature of this clinic is the co-operation of the various departments, in particular that of the syphilis department with our department. Every case of syphilis, no matter in what stage, is referred to the neuro-psychiatric division for examination, report and recommendation. This is in line with the modern conception of syphilis as a systemic disease in which the nervous system is usually rather than exceptionally involved.

Sixty cases of syphilis were examined, classifiable as follows:

Neurosyphilis	40	Dup.*
with Feeble-mindedness	2	9
with Epilepsy	1	
with Drug Addiction	1	
with Hypopituitarism	1	1
Syphilis, with a question of neurosyphilis	8	
Syphilis, but not neurosyphilis	12	2

*Duplication in statistical listings.

The importance of these routine neuro-psychiatric examinations of syphilitics is well illustrated by Case 195. This was a man of 39 who had been told twelve years previously that his sore throat was syphilitic. Three years previously he began to take treatments at a city clinic. His blood Wassermann had been repeatedly negative. A neurological examination showed relatively few signs of abnormality aside from tremor of the extended fingers and a slight exaggeration of the tendon reflexes. Spinal fluid examination gave a negative Wassermann and a cell count of

3, but the Gold test ran 1122453110. In the light of these findings the man should probably still be regarded as in need of observation and treatment, and re-examination of the spinal fluid will be made in another year.

A less vague case was No. 187, a man of 64, who came in complaining of his stomach and feet being cold and of sleeplessness, dizziness and deafness. Stinging pains in his left side had begun four years previously and two years ago he had developed delusions of persecution and hallucinations which led to his commitment at the State Hospital for a period of eighteen months. He had been paroled much improved but neurological examination showed much pathology of pupils, speech and reflexes, and the diagnosis of General Paresis (advanced brain syphilis) in a phase of remission was finally made. Intensive treatment was recommended but it was unavailing and he had to be returned to the State Hospital.

Case 227 illustrates the fact that *not all cases of syphilis with nervous symptoms have neurosyphilis*, although of course the exceptions are not numerous. This woman of 45 came thirty miles to the clinic complaining of "stomach, kidney and nerves" which we took to mean backache and bellyache. She was not very definite about these complaints but very persistent. She had had three miscarriages. A mass was discovered in the abdomen and a positive Wassermann was returned from the laboratory. A spinal fluid examination was entirely negative, however, as were also Wassermans on the patient's daughters. The patient did not return to the clinic so that no final diagnosis was made other than constitutional syphilis without nervous system involvement.

Neurosyphilis is often complicated with other afflictions; e. g., case No. 193 was a man of 33 who in addition to a very severe neurosyphilis, became addicted to morphine. He came up for antisiphilitic treatment but we advised its discontinuance because he refused to take the proper steps to overcome his morphine habit and will unquestionably go from bad to worse. He should have been committed to the State Hospital but neither he nor his folks would consent to this. Under these circumstances we declined further responsibility.

Syphilis in the second generation frequently attacks the nervous system with very striking yet often obscure manifestations. Case No. 250 was a girl of 11 who was difficult to manage, quarreled and fought with her sisters constantly, giggled and smiled more than was thought normal for her age, and was described by some as being dull and partially deaf. Her "uncontrollable temper" seems to

have been the reason for bringing her to the clinic.

Her father is known to have had syphilis for twenty years, now in the form of locomotor ataxia. Her mother had long been queer and at one time "almost lost her mind." The child herself had a general appearance of physical precocity (her face could easily have been that of an eighteen-year-old), whereas mentally her development was about 70 per cent of normal for her age. *This physical advance and mental retardation is characteristic of hereditary syphilis.* The blood and spinal fluid tests in this case were doubtful or negative which is apt to be the case in hereditary syphilis. Nevertheless intensive treatment is by all means indicated.

Another case of undoubted hereditary neurosyphilis, this one of the type called "tardy," was that of No. 242, a woman of 28, who came in complaining of being tired and of having palpitation and stomach trouble. Her history showed that she had been sickly since the age of 18 and in spite of this and much vague treatment for it, she had become a proficient musician and helped support her family in addition to herself. Neurological examination and a strongly positive Wassermann confirmed a diagnosis suggested by the fact that her mother was also a patient at our clinic with a diagnosis of old syphilis. In addition, her sister is in the State Hospital with a diagnosis of dementia precox.

We had had two cases in which there was some evidence that an *acquired neurosyphilis was developed on the basis of an hereditary syphilis.* Case No. 171 was a woman of 27 with a strongly positive Wassermann from a syphilis acquired in 1915; in addition to this, however, she had ophthalmoscopic indications of hereditary syphilis and her father died at the State Hospital of neurosyphilis. The other was a man of 49 (Case No. X) with undoubted syphilis of long standing but whose children are entirely free from any evidence of syphilis and whose physical and neurological abnormalities were strongly suggestive of hereditary rather than the acquired type.

EPILEPSY

Statistics—	Dup.
Idiopathic	1
Heredosyphilitic	1
Associated with Feeble-mindedness.....	1
With psychic equivalents.....	1

A persistent effort is made to determine in each case of "fits" the reason for the abnormally irritable brain and the particular irritant responsible for the fits. Of course this is the ordinary diagnostic routine for all neuropsychiatric cases but in the matter of fits, if a cause can be found, the case is usually classified other than as "epileptic." In

those cases of idiopathic fits or epilepsy in which no remediable factors can be discovered, however, it is often a problem as to how to make them socially and economically as little trouble as possible. Case No. 138, a lad of 15, had settled this quite well for himself because in spite of repeated attacks of convulsions and a partial paralysis of the right arm and thigh, he continued to work diligently at various simple tasks and earned as much as two dollars a day which he contributed to the support of his family. This lad was given the benefit of hospitalization for a time but the only aid we could offer him was luminal therapy. In view of the fact that his attacks had reached as many as six daily and were decreased by the luminal to two or three per month, his visits to the clinic were well worth the trouble.

From the medical standpoint one of the most interesting cases seen was No. 161, a boy of 14 who was sent several hundred miles to the clinic, with a history of frightful outbreaks of temper in which he would become so ferocious as to terrify everyone. He would throw bricks, dash at people with a butcher knife, curse and rage until no one knew what to do with him. These attacks had begun at the age of 8.

These probably represent attacks of epilepsy of the type known as *psychic equivalents.* The attacks of anger take the place of convulsions. There was considerable evidence in this case that this masked epilepsy arose on the basis of hereditary syphilis; one little brother had Hutchinsonian teeth and there had been several miscarriages. It was impossible to determine this with any definiteness and the patient did not return for treatment or answer our letters of inquiry.

ENDOCRINE CASES

Numerous endocrine abnormalities are discovered in the course of routine examination.

Statistics—	Dup.
Endocrine diseases	5
With Neurasthenia.....	1

A college student of 16 (Case No. 220) came to the clinic complaining of tremendous obesity which had begun at the age of 12. At the same time she had begun an irregular, scanty, painful menstruation, a generally excitable, tearful disposition with periods of marked depression, great fluctuations in her school work, appetite, etc., but above all constant and persistent intense headaches.

Physical examination of the girl showed her to be of the typical *hypopituitary type*, characterized by a certain kind of obesity, headaches, and general nervous symptoms. X-ray of the sella was negative, however. Nevertheless she made a most remarkable improvement when placed upon tri-weekly injections of posterior lobe extract with whole

pituitary gland by mouth daily. (Syphilis was suggested in this case by occasional doubtful Wassermanns, and strongly indicative neuropathology in the mother. The father and brother showed no signs or symptoms, however.)

A somewhat similar case in a younger patient was No. 123, a girl of ten who was brought from an adjoining county. She showed a slight intelligence defect, a marked overweight, and an abnormally small sella turcica by x-ray. It was our opinion that her relative feeble-mindedness was dependent upon pituitary deficit.

A common symptom in pituitary disorders is sleepiness. We had one patient (No. 173) never satisfactorily diagnosticated in which this was the chief symptom. She was a woman of sixty who "sleeps all night and very near all day." This began thirty-five years previously after the birth of a child (an endocrine suggestion). She would actually almost go to sleep on her feet. At one time she fell asleep near the stove, fell forward and put her eye out on the stove. Her daughter wrote on this history: "Please watch her; let her sleep without letting on and see how she does." In addition to this sleepiness she also had some sort of convulsions, an exact description of which could not be obtained, also attacks of suddenly falling without losing consciousness and formerly also severe headaches. Treatment with pituitary gland was unavailing.

PSYCHOSES (Frank Mental Illnesses)

Statistics—

Schizophrenia	3
Psychogenic depression	1
Paranoid Psychosis	1

Not many advanced mental diseases are brought to the clinic. Several patients in the early stages of dementia precox or schizophrenia were seen, however, with very interesting features both as to diagnosis and treatment, but a useful mental hygiene clinic is much more concerned with non-committable cases.

Dorothy, No. 183, was brought nearly a hundred miles, with a history that six months ago, at the age of 17, she seemed to change considerably in disposition and character. She complained much of a stomach trouble which was very indefinite; she was operated on for bad tonsils and adenoids and seemed to be much worse afterwards. She became sullen and indifferent, refused to work, swore at her mother, had spells of causeless laughing which she would not or could not check. She became notably immodest, pulling her skirts up over her knees before company and running about the house unclothed. She lost all ambition, became untidy, disorderly in her appearance and conduct, silly in her at-

titude. This is a characteristic history of dementia precox.

Case No. 248 was a Kentucky mountaineer, totally illiterate, probably feeble-minded, but always physically in the best of health up to the age of 21 when she was seen at the clinic. Her husband said that three months previously she had begun complaining of a head and back ache. Her husband had taken her to numerous physicians and even taken her back to her old Kentucky home but nothing seemed to avail. Her disposition changed; she became dull and indifferent, taciturn, speaking only to complain of something and yet not telling anything.

"Somethings wrong with my head . . . I don't realize like I used to . . . Nothing aint natural or nobody . . . Seems like I kind of choke, throat filled up with something, choky that way . . ." When asked if she knew her mind was affected, she said with a smile, "Yes, I know it is." Her husband said, "She don't talk foolish but she acts funny . . . Don't talk or do anything unless you tell her to; just sits around and studies."

Neurological examination strongly suggested the possibility of neurosyphilis but blood and spinal fluid tests eliminated this as a probability and she was recommended to the State Hospital with a diagnosis of hebephrenic dementia precox.

SPEECH DEFECTS

Statistics—

Speech defect, not otherwise classified	Dup.
with Neurosyphilis	1 1
with Feeble-mindedness	1 1

The problem of speech defects is a difficult one because of the fact that speech defect itself is only a symptom and may be a symptom of any number of diseases; yet it is so conspicuous and distressing an abnormality that it often obscures all others. Some of the various types appear in the following six cases.

Case No. 232 is a little fellow of 7. He could say only a few words and this was ascribed by his mother to the fact that at the time of birth his neck had been swollen and he had had strangling spells which had kept up all his life with other physical illnesses.

The child was a puny, yellow haired lad, with a triangle face, thick neck, his head bowed forward, chin on chest, oblique orbital fissures, broad nasal base, small triangular mouth, adherent ear lobes, square hands and square fingers, disorganized teeth, high arched palate, rough tongue, receding chin, undescended testicles, scaphoid scapulae, one absent knee-jerk. He was one of ten children.

The diagnosis was Mongolian Idiocy, and

the speech defect was in this case wholly dependent upon intellectual deficit.

Imbecility is a grade of feeble-mindedness next higher than idiocy. It, too, is frequently accompanied by speech defect, although not always. Case No. 198 was a girl of 10 who came chiefly because of eye symptoms. It developed that she had never spoken once in her life although she takes part in the singing and dancing at the school. She makes some sort of sounds which her mother is able to interpret as speech. She helps her mother about the home but is very restless at night. In general she showed the intelligence of a five-year-old child instead of a ten-year-old. Special training might help her considerably but it can never restore her to normal and she had perhaps best be committed to a school for the feeble-minded.

A brother and sister, aged 6 and 9, were brought in by a church worker from a remote part of the city. There had been much agitation in the newspaper about the miserable condition of the family. They had come here from Wichita absolutely destitute and lived in a tent in the coldest weather. Food and clothing were at a minimum. These two children were brought into the clinic because of a speech defect which was quite remarkable. It was a kind of jargon which was almost totally incomprehensible to anyone but themselves, although they said their mother could understand them to some extent. A stenographer tried to write it down phonetically but failed. "Ee." for example, meant "this." A number of other words were learned by us by patient investigation. There were four other children in the family, none of whom had this speech defect. The amount of feeble-mindedness present was not exactly determined but it was certainly not great. The little girl was doing good work in the third grade and seemed quite intelligent in ordinary social reactions. Both tuberculosis and syphilis are possibilities but the exact nature of the speech defect remained undecided.

Speech defect from psychological causes is frequently encountered and it is maintained by some students of the subject that all stammering is psychogenic, i. e., that it is a fear reaction manifested in a speech habit, often associated first with certain forbidden words and later with the letters with which those words begin, etc. In case No. 244, a bright lad of 11, with a most pronounced defect of articulation of the type which might be called baby-talk, we thought that the origin was almost certainly to be referred to fear of the father. He was a man with a loud voice and a firm, self-confident manner, the type of man who noisily corrects the physician for mispronouncing his name and who contin-

ually interrupts conversation between the physician and the patient. The lad was a slight, frail, timid fellow with much *Weltschmerz* in his face; he started and jumped back as I approached as if he were afraid of being struck. When he started to count for me he cried, and cried again when I asked him about the boys making fun of him. His father laughed at this and said: "I tell him crying will make him grow."

A less painful and more optimistic type of environmentally caused speech defect was that of a little colored boy of three who had never made any attempt to talk. His behavior at the clinic was so intelligent that we pushed the investigation of psychogenic factors and discovered that the child was an only child and lived on a remote farm, with practically no contact with any playmates; his mother was exceedingly taciturn and his father was gone most of the time. We asked the mother to practice systematically with the lad daily and she reported two months later that he had already learned to say seven words as the result of these efforts (eye, ear, nose, cat, mama, papa and dog).

A very disappointing feature of the clinic work has been the infrequency with which the local courts have referred offenders for examination. With the modern criminological ideals becoming widely disseminated, it has been difficult to understand why more judges have not availed themselves of this opportunity to get a (free) scientific opinion as to the mental condition of prisoners brought before them. In Mental Hygiene clinics in the east the court cases constitute a preponderance of the material; in our hundred and fifty-three cases only two were brought from prison detention. This reflects upon either the ignorance or the indifference of the courts. The findings in both of the cases examined, although of a most prosaic sort, were such that a fair and intelligent sentence could not possibly have been passed without them.

They were both brought on the same day (Nos. 253, 254) and proved to be similar cases. The first was a negress of 39 who had been accused of holding up a white man with the aid of a butcher knife and robbing him of his personal possessions. She vigorously denied the charge (but was later found guilty). Her examination showed clearly two things: in the first place she was an imbecile, or slightly higher in the scale of feeble-mindedness, and in the second place she had advanced syphilis of the nervous system of the type known as locomotor ataxia. The former deserves consideration in the pronouncing of a sentence; the latter deserves

consideration in the treatment after sentencing.

The second case was a white woman of 26 who had been arrested several times for soliciting and living with a negro man not her husband. She gave no adequate reason for this sort of conduct but did not deny the allegations. Her relatives were well thought of people, three of her sisters being high school students.

Examination of this case also showed feeble-mindedness and neurosyphilis. This combination is the more readily explicable by reason of the fact that the feeble-minded person is more apt to acquire syphilis than the normal person. But this patient was more than feeble-minded and syphilitic. She showed a perversity of sexual trend of a primitive sort which in the present social organization is very precarious. We know from experience that these trends are usually persistent. Consequently a long or indeterminate sentence in a place where she will receive antisiphilitic treatment is to be recommended.

Much more interesting cases are those of juvenile offenders. A representative case (No. 247) had been expelled from school in the first grade for persistent stealing. This stealing included the taking of all sorts of personal belongings from other children in the room but she did not limit her stealing to the school room. She appropriated baby carriages, kiddy karts, money and various pieces of private property from all over the neighborhood.

She had been entered at the special high school at the State Normal and had stolen things upon at least four different occasions. She had been expelled once and readmitted. Her chronological age was 10 and mental age 9 (at another time her mental age was said to have been higher than her chronological age). At any rate she could not be considered feeble-minded in point of intelligence. Her feebleness was a matter of volitional defect. Her brother, on the other hand, who was brought to the clinic at the same time with a complaint of nervousness and backwardness, had a marked intelligence defect, his mental age being only 70 per cent of his chronological age which was 12.

The explanation of both was to be found in the mother who was a remarkable creature of painted lips and cheeks, blondined hair and cornstarched skin, a high squeaky, baby voice and facial expression, with mincing manners and a silly ostrich attitude of "don't-say-that, Doctor, I-don't-want-to-hear-it." She and her husband had separated five times. The presumption is that the basis of the children's defect is largely the influence of this mother; some of it may be organic (e. g., hereditary

brain defect) but the probabilities are that most of it is psychogenic. In plain English this means it is environmental and curable.

The State Industrial School brought in a girl of 20 (No. 251) who had been paroled. She had never seriously offended but had been left an orphan. The problem for the clinic was in regard to some difficulties of employment. She was doing the housework on a farm at a dollar a week. The question was as to whether she had been overworked, and if so why she had not raised a voice of protest. Her only complaint had been of heart trouble which her employers thought was not bonafide; their only complaint was that she had outbursts of anger.

Our conclusions were that she had a heart trouble of a purely functional or neurotic sort which did indeed serve as an excuse, a very real one to her, however, utilized instead of more intelligent protest because of a slight intellectual subnormality and a considerable emotional instability. In this sort of a case the best treatment is an intelligent understanding of the case on the part of the parole officer with an effort on her part to improve the adjustment indirectly. In this case our advice was to improve the working conditions and requirements but to let the girl stay where she was.

PSYCHONEUROSES AND PSYCHOSES

The psychoneuroses and psychoses may be classified statistically as follows:

Statistics—		Dup.
Psychoneuroses (total) ---	17	4
Hysteria -----	5	2
plus tuberculosis -----	1	
plus neurasthenia, sexual neurosis type -----	1	
Psychasthenia -----	1	
Neurasthenia -----	3	
with endocrinopathy -----	1	1
Sexual neurosis type -----	2	1
Traumatic -----	1	
Compulsive stealing and lying -----	1	
Somnambulism -----	1	

In most clinics the psychoneurotic patient is among the most numerous and the most difficult. The neurotic patient who is poor is sick because he is poor and poor because he is sick and this perpetuates a vicious circle which requires large amounts of time both for examination and for treatment. So varied are the pictures presented that here we shall only present briefly three cases to illustrate treatment methods.

Case No. 165 was an intelligent minister, 62, who came for the simple reason that he did not have money to go to a private physician and was too proud to beg for free medical treatment. His chief complaint was a series of neurasthenic trifles such as numbness, dizziness, occasional headache, a tendency for the little finger on his right hand

to go to sleep, etc. He had been much disturbed by the report of a physician who said that he probably had hardening of the arteries.

A careful examination revealed no serious organic disease and of this he was informed. The nature of a neurosis was explained to him and with this simple encouragement and assurance and information he continued in excellent health for the next fifteen months. At that time he came in again to be reassured and went out again feeling all right.

In marked contrast is case No. 245, a farmer of 30 who came in talking like this: "I had the flu in January, 1923, and it started in my body and then it settled in my head. I laid from January up till April, then I had two operations and it did not give me no relief, just stayed that way and then I can't walk hardly; am awfully dizzy and when I look up I can't stand it and I have a hard pressin' pain at the front of my head like my thinkin' is about gone just like that, it presses always against me. It hurts me way up to my top head then to my ear. Some said it was imagin'. I can't hardly walk, just go from one side of the street to the other, can't keep myself balanced. Had an awful pain come in my head and that went to the left side right into my ear from my head, that made me kind of deaf, and I am awfully nervous. I can't sleep very good either. I believe that's all."

All this was told with many grimaces and much squinting, trembling, blinking and patting of the various afflicted areas. Such a picture is ludicrous in the extreme to those not subject to the pain, and this always increases the suffering of the patient. It is hard for people to understand that in such cases the patient is not consciously faking, but unconsciously doing so. It is apparent to everyone but himself that his suffering is not justified by physical findings. Nevertheless in so severe a case as this hospitalization is the best treatment. The State Hospital is open to those who cannot afford a private hospital. This patient was sent there as a voluntary case and has shown marked improvement.

(Many details about this case have been omitted including the fact that he had been taken all over the State of Kansas in search of a diagnosis. It is a typical neurasthenia of the hypochondriacal type, precipitated by influenza. All somatic examinations were negative.)

Case No. 162, was a man of 26 who had wandered about the country doing restaurant work with a pal with whom he had been constantly associated for some years. This pal suddenly decided to get married. The patient thereupon developed various symp-

toms of "nervousness," a rapid heart, cold hands, tremors and agitation. He was suspected by some of being addicted to drugs and by others of having a goitre.

Observation of the patient drew attention to various feminine characteristics; his voice, manner, hair and his artistic interests and ability. (It should be remembered that he was a cook.) In all probabilities this was a case in which the nervous symptoms arose because of an interruption in the sublimated homosexuality; i. e., his pal was probably bound to him by unconscious homosexual attraction and their separation by marriage was a heavy psychic blow. Such cases are theoretically treatable by psychoanalysis to great advantage. However, psychoanalysis is very difficult in a free clinic.

Case No. 240 is a man of 42. He was referred to us with a pathetic letter from his physician saying that he had been for five years under the care of a well known surgeon in Kansas City who had removed his appendix, his tonsils and some teeth, who had done spinal punctures and other diagnostic procedures including much stomach pumping and the like, who had drained his frontal sinns and his pocketbook. Incidentally the patient had also been in the hands of a capable internist whose ten-page report was sent along with the patient when he came to our clinic.

When we saw him, his complaint was precisely that with which he first saw a doctor five years previously, "weakness, headaches, nausea and vomiting." When one attempted to get details of these symptoms there was a great deal of vague describing with nothing described. He used all sorts of phrases such as "loss of power," "sense of pressure," "pretty bad," "all in." He told of his troubles with a sad and mournful voice and manner and at the same time with a facial expression which said plainer than words, "Damn you, don't you dare to make me well!"

Mental examination revealed very clearly that this man's only interest in life was his sickness. The surgical manipulation he had received so confirmed him in his invalidism that I regard him as a hopeless case. As I wrote his physician, "The combination of poverty, surgery and a weak nervous system is a pretty disastrous one, and after a surgeon has monkeyed with a case for five years and sent him home poverty stricken and neurotic and as full of complaints as ever, about the only thing left to do is to institutionalize him." Commitment to the State Hospital might cure him but his unconscious knows this and will probably forestall any such interruption of the pleasure he is deriving in his neurotic escape from reality—his enjoy-

ment of ill health. This could have been averted once by a mental hygiene clinic. Now it is too late.

STATISTICAL SUMMARY

This completes a series of representative pictures. They give some idea of the varied nature of individual cases. The comprehensive scope of the clinic activities may best be judged from a statistical list of the diagnostic groupings. Such a tabulation has been prepared by Mr. Stone and Miss Ripley and is presented herewith. The duplications are unavoidable because of the fact that so many factors often enter into a single case that it is unrepresentative to give the case a pigeon-hole classification which does not take cognizance of these interrelationships. Hereditary syphilis, for example, frequently results in feeble-mindedness, and such a case would have to be classified under both headings.

NEUROSYPHILIS

	Total	Dup.
Neurosyphilis	40	9
with Feeble-mindedness	2	
with Epilepsy	1	
with Drug Addiction	1	
with Hypopituitarism	1	1
Syphilis, with a question of neurosyphilis	8	
Syphilis, but not neurosyphilis	12	2
-----	65	2

PSYCHONEUROSES

Hysteria	5	1
plus Tuberculosis	1	
plus Neurasthenia, sexual neurosis type	1	1
Neurasthenia	3	
with Endocrinopathy	1	1
Sexual Neurosis Type	2	1
Traumatic	1	
Compulsive stealing and lying	1	
Somnambulism	1	
Psychasthenia	1	17

FEEBLEMINDEDNESS

Morons	9	2
Imbeciles and Idiots—		
Mongolian	4	
Idiopathic	2	
Endocrine	1	1
Heredosyphilitic	4	1
Cerebropathic	2	
With Speech Defect	1	1
With Epilepsy	1	1
-----	24	1

PSYCHOSES

Schizophrenia	3	
Psychogenic depression	1	
Paranoid Psychoses	1	5

EPILEPSY

Idiopathic	1	
Heredosyphilitic	1	1
Associated with Feeble-mindedness	1	1
Psychic Equivalents	1	4

ENDOCRINE DISEASES

Endocrine Diseases	5	2
with Neurasthenia	1	6
-----		1

NEUROLOGICAL DISEASES

Tic Doloreaux	1	
Encephalitis, epidemic	1	
Poliomyelitis, anterior	2	
Multiple sclerosis	1	
Hypertension, question of cerebral arteriosclerosis	2	7

Speech Defect, not otherwise classified	1	
with Neurosyphilis	1	1
with Feeble-mindedness	1	3
-----		1
Psychopathic Personality	1	1
Drug Addiction	3	3
Nervous symptoms dependent on physical disease	4	4
Pseudoparesis	1	1
No Disease	4	4
Undiagnosed	23	23

THE MENTAL HYGIENE MOVEMENT

Such is the work of the Mental Hygiene Clinic. The mental hygiene movement has become internationally dominant. Legislation has been enacted in many states to insure mental hygiene measures. The mental hygiene or psychiatric point of view has become an accepted thing in the more progressive criminal and juvenile courts and law schools. Numerous industrial corporations have instigated privately maintained mental hygiene clinics for the health of their employees and the improvement of their productive efficiency. Mental hygiene courses are given in several universities and colleges including Washburn, where it is a compulsory course for all freshmen.

Why should business men and college freshmen know about mental disease? Because "Ye shall know the truth and the truth shall make ye free." To possess correct information about mental diseases and mental inefficiency, psychological twists and torts, is to be guided toward mental health, just as knowledge of the nature of typhoid fever has led to its extermination (by drinking water purification and other means). The obvious truth is becoming recognized, that *mental health is worth having*, that it is just as important to have a healthy mind as to have a healthy stomach or healthy eyes. Some day it will seem inexplicable that railroads and school boards should examine the eyes of their dependents but totally neglect the examination of their minds.

At the present time the only official agency for the free dissemination of information about mental health is the Kansas Mental Hygiene Society. From the offices of this society are mailed every few weeks to all members (and to many non-members) free literature dealing with various aspects of mental health problems, generalizations of the specific issues presented in the work of the clinic above reported.

Other activities of the Kansas Mental Hygiene Society will be reported elsewhere. The work of this clinic is its most ambitious undertaking.* These clinics, however, are not dependent for funds upon the Mental Hygiene Society, all the receipts of which are devoted to the distribution of literature. The Topeka clinic is maintained as a department of the Topeka municipal clinics by virtue of the organizing genius of Dr. Earle Brown and the intelligent co-operation of health commissioner, Robert McGiffert, under whose direction the public health functions of Topeka have reached a level far above that of any but a few cities in the United States. All services except that of the nurse and stenographer have been donated.

Membership in the Kansas Mental Hygiene Society is open to everyone and entails no obligation except that of paying the regular dues of two dollars, a sum which is spent in securing and mailing literature to interested persons including members. The executive secretary is Mrs. C. F. Menninger, 507 Mulvane Building. Further information will be mailed upon request.

*The Topeka clinic is the oldest of those established by the Kansas Mental Hygiene Society, but another one is maintained under our auspices by the Kiwanis Club at Lawrence, established in 1923.

—B—

Puerperal Sepsis

DR. H. E. MARCHBANKS, Pittsburg

Puerperal sepsis is a condition that should have been eliminated several years ago but we still find it playing its part in obstetrics to such an extent that we feel it not untimely to offer a discussion on the subject from the standpoint of prevention as well as the treatment of same after sepsis is present.

We find in going over the history of obstetrics that institutional delivered cases were more often followed by sepsis than were those delivered in the homes. This condition was investigated by the men of the time and found to be due to the fact that the infection came from the hands of the operators which were improperly cared for in their examinations and manipulations. A country wide campaign was put on to correct this more or less careless practice. I mean by campaign that those interested wrote their findings in the journals of the day and the societies grew interested and finally the number of cases of child bed fever have become quite scarce. One might go into detail on this subject relating the part played by Semmelweis, Holmes, Lister, Pasteur, Koch, etc., but that would make the paper too long and we will leave it out. But let us not grow lax and say because we have had no sepsis that we don't believe the man who is ordinarily clean can have a sepsis and by so doing

get back to where we were even 25 years ago. Let us go on to the place where habit, if you please, will make us not only be clean but aseptically clean and where the patient will not be infected through our carelessness unless in case of emergency where time alone would mean death to the patient if such condition can be imagined.

No one cares to blame himself for an infection and if he has been aseptically clean and not examined the patient more often than necessary he can justify himself if his patient should chance to have sepsis. I mean by aseptically clean to scrub one's hands with soap and water followed by some antiseptic solution and then to use gloves which have either been sterilized previously or cleansed at time of using in antiseptic solution. (Bichloride, lysol, etc.) The parts also should be cleansed and care taken to not let the examining fingers come in contact with the rectum. DeLee advises one to separate the labia with the other hand and insert the fingers anteriorly. He also recommends rectal examination to be used instead of vaginal wherever same is practical. Personally I have not used the rectal examination enough to speak of its merits but many of our better men think they can determine almost as much per rectum as per vagina.

What is perhaps, more ideal is to examine one's patient vaginally during the last two or three weeks of pregnancy and to then make no examinations at time of delivery unless prolonged labor or complications of some nature require a digital examination at that time. I think most of us examine our patients too frequently. We do it so we can regulate our time for our other work more accurately. One is perhaps justified in so doing occasionally but to make a practice of such will, in my opinion, lead sooner or later to one's undoing. In other words the public is pretty well up on this thing and while they perhaps do not have it straight, yet a single case of septicemia by a young man in the profession is apt to mean his career or nearly so. The older man can get away with it better but it hurts even him, especially in a small community.

We have helped in several cases of septicemia in the last few years and I believe a history of these cases will not come amiss.

Case 1. A young married woman of 29 years. She had been a nurse before she was married. She came to the hospital for the delivery of her first baby. Was in labor several hours without results, after which baby was delivered with instruments. Baby did not survive the delivery. Mother went along nicely until third day when she had a chill and temperature went to 104 degrees.

It went back to normal to return after another chill. This see-sawed back and forth. Quinine and other chill remedies were given but the fever and chills went and came.

I was called in about 5 or 6 days after chills started and a diagnosis of sepsis was made. Strep. were found in cervix also in blood culture. Streptococcic serum was given intravenously at 12 hour intervals until 400 cc were given. The serum seemed to do little if any good so far as the let up of the fever or chills was concerned. We gave her mixed infection phylacogen intravenously in increasing doses until she was getting 2cc daily.

We watched the uterus and marked the size of same on abdomen and learned by such observation that uterus or mass above uterus, at least, was getting gradually larger. As soon as we were satisfied of this we advised operation on the theory that there was localized pus somewhere in the pelvis. So 53 days after delivery the abdomen was opened and three puss pockets drained. The patient made a very uneventful recovery from there on out.

Case 2. Hosp. No. 1386. Mrs. L. M.

This is a case that Dr. Church and I were responsible for. The patient was a young married woman 17 years old. She was very small in weight and height. In delivering her we each took our turn at putting on forceps and giving anesthetic, so divide the honors of the infection. I claim it and Dr. Church claims it.

On the third day after delivery she had a fever of 104° which did not leave after alimentary tract was well cleaned. On the next day 100cc antistreptococcic serum was given intravenously and was repeated on two following days. The temperature let up for a day or two, or at least Dr. Church thought it did, but soon it went up again. She came into the hospital on the 11th day, August 10th, 1922, with a temperature of 105°, pulse 134, resp. 36. The physical findings were otherwise negative. Laboratory findings showed 30,300 white cells with 91 polys. Albumen, a large amount and both red and pus cells in the urine. Vaginal smear and blood culture were both negative for strep. Her temperature ran the typical fluctuating temperature from 98 to 105. We gave her mixed infection phylacogen intravenously in increasing daily doses until we were giving her 2cc daily. On the 13th day after coming to the hospital and the 21st day of her sickness her temperature went to normal and remained there. She soon left the hospital and was up and about in a short time, much to the relief of Dr. Church and myself.

Case 3. Hosp. No. 1562. Mrs. T. A. P.

Patient came into hospital with placenta

praevia. She had been examined vaginally by two physicians before she was sent into hospital and vagina was packed full of cotton tampons to prevent further hemorrhage. This was done to enable her to reach the hospital. On entering hospital we made a digital examination and found the cervix well relaxed and the placenta attempting to hold forth. The patient was put under ether anesthetic even though the pulse was 140 and she was fairly well exsanguinated and with quite a quick push through the placenta the head was forced back and both legs brought down and almost instantaneous delivery was done. The placenta came away readily. The baby did not survive. On the second day following delivery due to the fact that so many individuals had examined the patient we gave her 50cc antistrep. serum intravenously. This was followed by slight chill and fever. On the next day her temperature reached 102°, pulse 116. Alimentary tract was cleansed. Next day temperature reached 101.2°, pulse 120. She ran about the same amount of fever each day. On October 10th, we gave her 50cc more of antistrep. This was followed by chill and temperature of 105°. The temperature on the following two days went to 102 degrees. The red cell count at this time was 1,940,000. Haemoglobin 25 per cent. White count 22,150. 91 polys. On the 13th or the 10th day after delivery we transfused her and gave her 400cc of blood from her husband's vein. They were both in type four. The temperature went to 101° on the next two days after which it did not go above normal and patient left hospital on 20th day after delivery with a red count of 2,900,000 or a gain of 1,000,000 as a result of the transfusion.

Case 4. Hosp. No. 1436. Mrs. F. B. Age 28. White.

Patient came into the hospital August 27th, 1922, complaining of chills and fever. Past history was negative except she had had two other children before the one that was born six days before she entered the hospital. Gave history of feeling good until third morning following delivery when she had fever and pains in pelvis. Felt badly all day, had chill on next three days followed by high fever and sweats. Had summer cold three or four days before baby was born.

Physical examination: Rather well nourished woman of 28 years, looked sick and rather anemic with an expression of fatigue on her face. Temperature from 99 to 104°. Pulse 120. Resp. 24. Uterus felt in mid line and mass also outlined to right of uterus. Examination was otherwise negative except her skin was rather clammy most of the time. We tried to give this woman antistrep. serum

intravenously without first testing her for susceptibility to horse serum and got a most beautiful anaphylaxis. Before we had 5cc in the vein she began to complain of itching and immediately I withdrew the needle. Nevertheless she got cyanosed and cold and pulseless and all the rest of it. We worked with her rather intensively for the next 30 minutes and she came out all right. She got no more antistrep. needless to say. We gave her small intravenous doses of mixed phylacogen but even this could not be tolerated. We gave it subcutaneously only, after the first few doses. We were afraid to transfuse her for fear that any foreign serum might work in the same way. On August 29th, blood culture was negative while on September 7th the blood was positive for strep. Blood count on entrance was 20,300; 84 polys. On September 6th, 22,500. On October 2nd, 27,250, 91 polys. At this time, 36 days after she entered hospital, the mass in the right side was easily palpable by bimanual examination. Uterus was more or less fixed. Operation was advised even in the face of sepsis and on October 3rd, abdomen was opened and suppurative right salpingitis and infected right ovary were found and drained. The patient ran some fever for several days but left the hospital October 22nd in good condition and made a complete recovery.

Case 5. Hosp. No. 2010. Woman 34 years old. White.

Came in complaining of chills and fever. Had given birth to child two weeks before. She began to have fever on 4th day and had been having it at frequent intervals since. Had first chill when baby was 6 days old. This was followed by high fever. Temperature went from normal to 104°. Was thought by family physician that she had "flu" since several other members of the family had had it.

Physical examination: Patient was a rather poorly nourished woman of 34 years. Skin was clammy and she had more or less anemic appearance. Examination was otherwise negative except for hypotension. Her temperature fluctuated from 99 to 104.2°. We got a positive blood culture for streptococci. White count 20,000; 95 polys; 3,960,000 reds. Haem. 75. She was found to be in type two and her husband was in the same type. On March 2nd we transfused her with 450cc of husband's blood. Red cells were increased to 4,680,000 and Haem. to 85 per cent. This made the patient feel better although we saw no great change in temperature as result of transfusion. On March 14th we transfused her again with the same results of feeling better but no great change in temperature for three days at which time the temperature

reached a lower high mark and continued to gradually go lower from then on with an occasional high temperature preceded by quite severe chill.

She got mixed infection phylacogen daily during the whole time in hospital. She finally reached normal, and remained normal, April 17th or 46 days after entering the hospital or 62 days after birth of child. She had as a complication a phlebitis of left femoral vein also an arthritis of both wrists and left ankle. These were all quite well cleared up when she left the hospital on April 22nd, 1923. She has done very well since that time.

This only in a small way covers this very important subject. We might go on and classify the etiology of such infections, the modes of infection, etc., but that is not the object of our efforts.

In conclusion we will summarize:

1. Sepsis is usually preventable.
2. Most cases of sepsis result from the carrying of infection from without into the uterus and great care must be taken when one examines a patient vaginally.
3. One should suspect sepsis when the temperature begins to go up and should start treatment at once.

4. Treatment is not specific but transfusion of human blood, antistrep. serum, and mixed infection phylacogen seem to give results when given early and in large doses.

—B—

BELL MEMORIAL HOSPITAL CLINIC

Orthopedic Clinic of Dr. C. B. Francisco

Associate Professor of Surgery

INFANTILE PARALYSIS IN ADULTS

I wish to present to you today three adult cases of infantile paralysis, two of these cases are of about 6 months standing, the other case of 22 years standing. In other words the paralysis came on when the patient was two years old. The history of the first two cases are as follows:

FIRST CASE

Chief Complaint—Disability, unable to walk.

Present Illness—Patient says he was in excellent health until on the night of August 5, 1923, about midnight when he was suddenly taken ill with a severe general headache which was bursting in character and almost intolerable. Also developed almost simultaneously severe cramps in stomach and upper abdomen, and considerable flatulence and gas pains, all of which prevented further rest or sleep. Admitted to Winfield Hospital next day and soon developed a very stiff neck, which seemed to draw his head backward. These conditions continued for the

next three days, and on the fourth day he found that almost every joint in his body was stiff and painful, especially the knees and ankles. However, he was still able to stand and walk with some difficulty. Headache constant, but not so severe as at first, but back of neck was particularly sore, tender and rigid. Patient next found on the sixth day that he could not move his lower extremities. Voluntary control seemed to be entirely lost. When he moved his body he had a peculiar sensation as if there were many needles pricking him in the back, and forceful movement of legs was quite painful. Electro-therapy was of no avail. Has lost about forty pounds within past five months. No diplopia. Slight incontinence of urine. No nocturia or increased frequency. Chronic constipation for past two years. Appetite fair. No night sweats, cough or hemorrhages of any kind.

SECOND CASES C. F.

Chief Complaint: Cannot walk. Disability, both legs and right arm.

Present Illness: Started October 29, 1923. Began with back ache in lumbar region, aching in both sides and in both lower abdominal quadrants while attending a dance. Went to hospital next day with fever of 103.5. That evening while walking around the bed in hospital to turn off light her legs gave way at the knees and she fell. Could not get up and was put in bed. Noticed sharp pain in arm and back and abdomen. These pains increased in severity and intensity.

She woke up the third morning after falling unable to move either leg or the right arm. Legs were painful when they were moved and fever continued for 10 days but was not high. First sat up about 2 weeks after onset and began to move right arm and right leg within two weeks after acute illness. Arm improved rapidly. Now can place hand to back of head and to small of back but movements awkward and somewhat difficult. Cannot raise arm above head. First stood up about one week ago. Could not balance nor move left foot but left leg would support her. Could slide right foot along but unable to lift it from floor. Patient remained in hospital at Beloit about two months, gradually improving after first two weeks. Diagnosed there as infantile paralysis.

The history of the recent illness of these two cases have much in common, viz: Both healthy individuals, illness came on suddenly with high temperature, some gastric distress and rigidity of the neck; paralysis came on third or fourth day and principally of the lower extremities. This is the usual history given in cases of poliomyelitis and if kept in mind often enables one to suspect the diag-

nosis before the paralysis appears. Usually the diagnosis is not made until after the onset of the paralysis. It must be remembered, however, that in children as well as adults you may have an onset that is more insidious than in the above cases. The diagnosis is always difficult and the prognosis cannot be determined until after the first 36 hours following the onset of the paralysis, as usually the maximum amount of paralysis is reached at this time. Death is produced by paralysis of the respiratory muscles and occurs within the first 2 or 3 days after paralysis begins if the case is to terminate fatally.

These cases present very similar distribution of their paralysis and of about the same degree. Both are able to stand but cannot walk and each of them presents a flaccid paralysis of the muscles of the lower extremities. In the boy, A. W., the left leg is practically a complete dangle leg as there is no power in any of the muscles except slight power of flexion and extension of the toes. He has, therefore, no deformity in this leg as deformities are always caused by either uneven muscle pull or by strain of a joint in weight bearing. The right leg presents power of motion in all directions. There is about one-tenth power in the thigh muscles, just enough to rotate the leg and start flexion and extension at the hip and knee. This is very fortunate for him as he has enough power to stabilize his leg. In the foot there is more apparent power in the gastrocnemius than in the anterior group as the tendo achilles is slightly contracted. This, however, may be due to the fact that his foot has been principally in equinus since his paralysis, with the result that the achilles has contracted just as it normally would do. If you put up a fractured leg in a cast including the foot and allow the toes to be down the achilles will contract and often requires much effort to overcome the contraction. The same rule holds in polio, so that you always attempt in the management of a recent case to keep the foot at right angle, so that if there is any power in the tendo-achilles it will not contract. Completely paralyzed muscles never contract and the only point in keeping the foot in good position in such cases is to assist the circulation, which is always bad in these cases anyway. This fellow's arms and back are normal.

In the girl—C. F.—there is about one-sixth power of motion in all directions of the right thigh so that she can start the movement in the knee and hip. Her right foot presents motion in all directions except inversion which is the result of weakness of the anterior tibial muscles. You can feel the anterior

tibial but it is not strong enough to move the foot. The left thigh presents no power of motion except slight internal rotation. She cannot therefore move her knees or hip and has but little stabilization of the leg, the left foot is about the same as the right one. Her right arm is moderately atrophied and she cannot lift the arm straight out from the body or raise her hand over her head as a result of weakness of the deltoid muscle. She can, by holding her arm down to her side, get her hand on her head. Her back and left arm seems normal. She has no deformities as the muscles have all weakened to about the same degree. What shall we do for these cases? By making them double upright braces attached to the shoe and extending to the tuberosity of the ischium with free joints at the ankle, with a strap to hold up the toes and a drop lock at the knee, we can stabilize their legs so that they can walk. At first they will have to use crutches but as they get the tone back to the muscle tissue that they have I feel sure they will be able to walk with only the aid of the braces. It means much to them to be able to get about as they are dependent upon themselves and have to earn their own way in the world so that they will be quite pleased and happy to use crutches for a time so long as it enables them to get up and walk.

There were several cases of polio in adults in Kansas last summer and fall which is unusual as this disease was originally called infantile paralysis for the reason that it was thought to attack only infants. Recently it seems to be becoming more prevalent among adults.

The treatment of these cases in the acute stage is symptomatic. When the soreness of the muscles has disappeared light massage and exercises can be started. Usually from 6 to 8 weeks is required for the sensitiveness to disappear and then braces can be made such as we have ordered for these cases and they can begin getting about.

Without going into detail, I wish to merely present this next case to you to show you the effect of poliomyelitis in the severe cases. This boy, H. B., is 24 years old. He had his paralysis when he was 2 years old and has been unable to stand since and on account of the weakness of his back is unable to sit without supporting himself with his arms. His hips and knees are flexed into a sitting position. Notice the extreme shortening of the bones of the lower extremities as compared to the upper. He has very little power of movement in his legs but has enough stabilizing power in his tensor fascia femoris to enable him to crawl on his hands and knees. We plan to straighten out this fel-

low's legs, give him braces and see if we can't make him walk, and will hope to show you the results of the effort later on.

Out-Patient Medical Clinic of Dr. H. L. Jones

CASE No. 1

Patient J. C. Colored. Female. Age 24.

First came to clinic at Bell Memorial Hospital in April, 1921.

Chief Complaint: Pain in upper abdomen and at opposite level in back. She has lost 21 pounds in weight in the past year. Has had night sweats but does not at present.

Past History: Had usual diseases of childhood which were mild in character. No illness in adult life until May, 1920, when she had influenza. At this time she was sick in bed for three months and had fever all the time. Has since been unable to gain any weight and is tired all the time.

Physical Examination: At this time showed an area of percussion dullness in base of the right chest which strongly suggested a fluid accumulation. A radiograph of the chest at that time showed the right pleural cavity filled with fluid to the clavicle level. Aspiration revealed thick pus. This patient went to another hospital for operation when she had a rib resection with drainage of the pleural cavity. Two months later the wound in the side opened spontaneously and discharged pus for some weeks. After this she slowly gained weight and her appetite was fairly good.

In November, 1923, an abscess formed in the right axilla and discharged pus and blood. She came to the Clinic the second time January 24, 1924, complaining that she does not gain weight and is unable to do much work. Her temperature was 97.4, pulse 100, respiration 24.

Physical Examination: At this time showed a diminished respiratory excursion of the right thorax with markedly spastic muscles over the right upper chest. The patient is poorly nourished. She shows no dyspnoea. Her spinal column is straight. The upper one half of her right chest anterior is hyper-resonant to percussion and the breath sounds are increased in intensity over this area. A few moist rales are heard in the third interspace to the right of the sternum. Posteriorly there is dullness on percussion from the spine of the scapula to the base of the lung and around to posterior axillary line. The fremitus is poor over this area and the breath sounds are faintly audible except in the apex. Left lung appears normal. The heart is normal in size and position.

Diagnosis: Thickened and adherent pleura with incomplete expansion of the right lung.

A skiagraph of the chest shows the right

lung is opaque from the clavicle level downward. Right apex is clear. There is a fluid level on the right extending outward from the middle of the tenth rib at spinal end. There is a translucent area above this near the mediastinum. An exploratory aspiration showed thick purulent fluid in base of right thorax. Patient referred to surgical service.

Up to date she has not submitted to further surgery.

This case is of interest for showing the unusual length of time an empyema can exist without being seriously disabling. It also illustrates the futility of surgical drainage in these cases without thoroughly exploring the abscess cavity to make sure there are no undrained pockets and the necessity of keeping the drainage wound open until the purulent discharge has ceased.

CASE No. 2

Patient V. H. Age 22; married. Occupation, salesman.

First presented himself complaining that one month ago he noticed some swelling of his neck above the right clavicle. He now has dyspnoea on exertion and at times has difficulty in swallowing.

Family History: Father and mother living and in good health. Has one brother in good health. Has no brothers or sisters dead.

Past History: Had all the diseases of childhood but otherwise well until he had an attack of pneumonia followed by an empyema during the influenza epidemic in 1918. The empyema was drained through a rib resection and he made a good recovery. Since this time he has been in good health until the present trouble arose.

Physical Examination: Temperature 98; pulse 84. Heart-sounds clear and heart is not enlarged. Chest expands symmetrically and breath sounds are normal.

Neck examination reveals an enlargement of the right lobe and isthmus of the thyroid gland and palpable glands in the anterior triangles in his neck. There is an edematous area above the clavicles extending back to the trapezius muscle. Radiographic examination shows a much widened mediastinum with absence of pulsation, in the shadow.

In view of the extensive thyroid enlargement a diagnosis of substernal goiter was made and the family were assured that eradication of this was a formidable undertaking as the tumor area appeared to extend down at least to the aortic arch. Surgery was advised with a very guarded prognosis.

The patient consulted another physician and also a surgeon, neither of whom concurred in the diagnosis and considered the condition due altogether to a cystic adenoma of the thyroid situated entirely above the

clavicle. Both advised surgery and gave a good prognosis. He submitted to an operation for thyroidectomy about ten days later.

During the early stage of the anaesthetic he exhibited marked respiratory stridor with considerable cyanosis. This continued through the operation and was not relieved by the removal of the enlarged right lobe of the thyroid. It was evident that he was still suffering from pressure somewhere along his trachea. Within a minute or two after the right lobe of the thyroid was removed the patient ceased to breathe and all attempts at resuscitation which included a tracheotomy failed to re-establish respiration. An immediate post-mortem examination of the substernal area made through the thyroid incision revealed a large firm mass extending downward below the clavicle further than the surgeon could reach with his fingers. A piece of this was excised and sent to the pathologist and he reported it a sarcomatous growth probably arising from a persistent thymus.

CASE No. 3

C. F. L. Age 39. Single. Salesman.

I saw the patient the first time July 28th, 1923.

Complaint: Pain in the left chest. Cough and difficulty in breathing.

History of present illness: The night previous while walking along the street the patient was seized with sudden severe pain in the left chest near the nipple area. He became faint and had to sit down by the side of the street before he could proceed. He was unable to walk to his room which was some five or six blocks distant and had to be taken home in a taxi-cab.

Past History: Has had mumps. Had influenza during the epidemic in 1918.

Family History: Presents nothing of any interest.

Physical Examination: Inspection of the chest reveals the absence of expansion of the left thorax with compensatory increase of the expansion of the right side of the chest. Breath sounds over the left lung are practically absent. The heart sounds are heard more distinctly to the right than to the left of the sternum. Over the right lung the breath sounds are intensified; almost suggesting tubular breathing. Percussion note over the left thorax is tympanitic while over the right chest there is a hyper resonant note.

Diagnosis: In view of the sudden onset, absence of breath sounds and the tympanitic note over the left thorax with the evidence of displacement of the heart to the right a diagnosis of spontaneous pneumo-thorax was made. The patient was sent to the hospital for radiograph and observation. At the time of admission his temperature was 99; pulse

82 and respiration 28. Chest findings were not materially altered, pain was still present although lessened in severity.

Skiagraph of the chest at this time showed pneumo-thorax beginning with the level of the sixth rib posterior and running diagonally down and inward involving the lower one-third of the thoracic cavity, displacing the heart to the right, and partially collapsing the left lung. Near the left border of the left lung there was an adhesion to the parietal pleura. Both lungs showed increased lung markings and evidence of old tuberculous process. Patient remained in the hospital until August 16th, during which time his cough and his pain subsided and dyspnoea was not noticeable. His temperature remained practically normal with an occasional elevation to 99°. At no time was there any evidence on physical examination of any fluid in his chest. At time of his discharge the roentgenologists reported the heart and mediastinum still displaced to the right. The pneumo-thorax is evident although the area is decreased in size. Haziness over the left chest suggests the possibility of a thin film of fluid. It was impossible to demonstrate any fluid level in the picture as the plate was made with the patient in the recumbent position. The patient left the city for a period of two or three months for rest and recuperation so that there was no opportunity for further observation until his return about three months later. At this time no evidence was detected of any remnant of his pneumo-thorax. The heart was normal in position and lung sounds were all normal.

This case is presented because of the comparative rarity of spontaneous pneumo-thorax in an individual in apparent good health. The occurrence of this trouble in this man was probably tuberculous in origin although he had not previously exhibited any symptoms of tuberculosis nor was the pneumo-thorax followed by any evidence of tubercular activity.

Hay Fever Prophylaxis

We now know what hay fever is, and we know how to head it off. The patients are sensitized to certain pollens, and by a simple cutaneous test we can determine the particular pollen which is causing the trouble long before there is any of it in the air the patient breathes. Then, when the offending pollen is identified, it becomes a comparatively easy matter to build up the patient's natural resistance to it.

The extract that is required in the vast majority of late summer and early fall cases of hay fever is made from ragweed pollen, and it is being marketed in small vials of

graded concentrations so that prophylaxis can be begun with one or two "units" and increased by degrees up to 1,000 units without any more trouble than is involved in withdrawing the dose from the vial and perhaps adding a little diluent from another vial that is supplies as part of the outfit.

For further particulars see Parke, Davis & Co.'s advertisement in this issue, entitled "For Hay Fever Prophylaxis," or send to P. D. & Co. for literature.

SOCIETIES

SHAWNEE COUNTY MEDICAL SOCIETY

The May meeting of the Shawnee County Medical Society was held at Christ Hospital, Monday evening, May 5. The following program was presented:

Dr. C. F. Menninger—"Diabetes in Children"—Three clinical cases.

Dr. H. A. Alexander—"Anomalous Twins"—Case history.

Dr. A. K. Owen—"X-ray Plates of Colles Fracture and Comparison With the Normal Arm."

Dr. Karl A. Menninger—"Abdominal Migraine"—Case history. "Brain Tumor—Clinical case.

The society adopted a resolution endorsing the work of Dr. M. O. Nyberg as secretary of the state board of health.

A lunch was served after adjournment.

A special meeting of the Shawnee County Medical Society was held Saturday evening, May 10, at the University Club.

Dr. Walter E. Dandy, professor of surgery, at Johns Hopkins University presented an excellently prepared paper on "The Injection of Air into the Cerebral Ventricles in the Diagnosis of Brain Tumor." Dr. Dandy showed a large number of lantern slides to illustrate his talk. There was a total attendance of 59 at the meeting.—EARL G. BROWN, Secretary.

DEATHS

Gilbert Lee Coffman, Independence, died April 27th, following operation on the gall-bladder. He was 55 years old. He was graduated from the Marion-Sims College of Medicine, St. Louis, in 1896. He was a member of the Kansas Medical Society.

Milton Fackler Sloan, Stilwell, Kan., aged 70, died May 11, of arteriosclerosis. He was graduated from the Louisville, Ky., Medical College in 1876.

Lorenzo D. Haynes, Erie, Kan., aged 69, died May 13. He was graduated from the Kansas City, Mo., Medical College in 1892.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

ASSOCIATE EDITORS—SAM MURDOCK, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, J. T. AXTELL, E. S. EDGERTON, E. G. MASON, J. D. RIDDELL, C. S. KENNEY, D. R. STONER, J. A. DILLON, W. F. FEE.

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Medical Education in Kansas

Perhaps no more timely subject could have been chosen by President Ebright for his annual address than "Medical Education." In Kansas, at least, this subject of medical education needs to be presented to the people and to their representatives in the legislature in some manner that will convince them of its economic importance to the state. The half hearted spirit with which the state has proceeded with its attempt to establish a medical school and hospital is not very convincing of its honesty of purpose. It may be recalled that when the campaign for standardizing medical schools was being conducted, Kansas City and its environment was regarded as a logical location for one of the medical centers; and the University of Kansas School of Medicine, being already located, was given preference in this field and the establishment of another school discouraged by both the Carnegie Foundation and the American Medical Association.

Missouri has for many years conducted a school of medicine covering the first two years, but has not yet established a medical department. St. Louis and Kansas City are the only logical locations for such a department in Missouri, but with Washington University at St. Louis and University of Kansas School of Medicine at Kansas City, the

establishment of another school at either of these places was not to be expected so long as the development of these schools promised to meet the requirements for the territory they represent.

At various times since the Kansas school was first located at Rosedale, there have been more or less active efforts on the part of Kansas City men to secure a medical department of the Missouri University. We have recently heard rumors that another and stronger effort was being made, or would be made, toward that end.

The plans evolved for the Kansas school contemplate an outlay of \$2,500,000 for the plant. In comparison with the expenditures in other states for the same purpose this might be regarded as a penurious program. What Missouri might be willing to spend in establishing a medical department of its University at Kansas City can only be surmised, but one may reasonably assume that such a program would be backed by very much larger appropriations than Kansas can afford to make.

It was the decision of the Carnegie Foundation and the Council on Medical Education of the American Medical Association that there was room for only one school in this territory and it is doubtful if two large schools could be successfully developed in Kansas City. If the medical profession in Kansas City is discouraged at the poor showing Kansas has made and can convince the Missouri legislature to act in accordance with their views, it is doubtful if any valid objection can be raised from this side of the line.

Presuming that Missouri does appropriate a sum sufficient to guarantee the rapid development of an adequate medical school at Kansas City, what will be the fate of the school at Rosedale? Will Kansas continue the meager provision for its upkeep on the present basis, with an occasional appropriation for a new building; or will it relinquish the opportunity and surrender the field it has held for twenty years?

It is inconceivable that Kansas pride will contemplate either even with complacency. To forestall the issue something more is required than has yet been attempted on the

part of the Kansas profession. The argument has been made by some of our legislators that the doctors in Kansas did not seem very much interested in the medical school. Some of them said they had never been approached by the doctors in their respective districts in regard to the matter. If there is anything in this—if such an excuse for voting against the appropriation for the school has been offered by any member of the legislature it should not be permitted to occur again. It is not at all likely, of course, that the requests of the doctors would influence every member of the legislature, but, on the other hand, some of them have a great deal of confidence in their family physicians and will be more easily convinced by them of the economic value of a high grade medical school to the state. The majority of them, however, will follow the expressed desire of the masses of their constituents, so that it is of the utmost importance that the people be convinced in some way that the rapid development of the medical school is very much to their interest and promises larger benefits than they have so far expected.

If the people and their representatives in the legislature continue to regard this institution as merely a school for the training of doctors the undertaking is hopeless. The functions of the school must be presented in their broadest scope, including the hospital service of its staff of clinicians, the research work of its teachers, and the educational value of the school to the profession of the state. The members of the Society can present these points to their friends and patients, if they will, so that the public service which it is the purpose of the school to render will be understood and appreciated. The fact is that the responsibility for the future of the school of medicine lies largely with the medical profession of the state. If we have not been indifferent we have been inactively interested. The legislature cannot be seriously criticized for failing to appropriate funds for an institution of which they had not been shown the importance or need. If the next legislature fails to make an appropriation for the necessary additional buildings on the new site it must not be because of our lack of interest.

Another failure of appropriation is very likely to determine the location of the medical department of the University of Missouri at Kansas City.

—————R—————

• Fashions in Hygiene

"Swat the Fly" has been the slogan of the health experts for each summer season for a good many years. The youngsters have vied with each other in the swat fest and in some localities the slaughter has been encouraged by the establishment of a fixed market value for the swatted flies—at so much a pint.

Now comes C. F. Greeves Carpenter, an English entomologist (*Hygiae*, June 24) who says it is a dangerous business and does no good anyway because the few flies that can be swatted don't count very many in proportion to those that are hatched out.

Flies not only pick up disease germs on the bristles of their body and legs and carry them about, but bacteria flourish within their alimentary canals and when their bodies are crushed, the germs spread, so that dead flies are more dangerous than live flies. Will the health experts now change their summer slogan to "Don't Swat the Flies," or will the fly question be ignored. The danger already done is inconceivable. To estimate the number of germs that have been distributed by swatting the flies on the furniture, the walls and particularly the table cloths in our homes and on the bald heads of our friends is a stupendous problem. Certainly such errors as this should never have been committed by those who have assumed the responsibility for the public health.

Swatting flies, however, is a sort of habit with most people—a habit acquired before the famous slogan was invented. When a fly alights on one's bald head, or, if he is not so favored, on his face or his hands, one doesn't think so very much about the possible germs it may harbor as the annoyance to his peace of mind, and one swats him—a sort of automatic response to a particular irritation. It will be extremely hard to break the habit.

But one may still question the logic of Mr. Carpenter's reasoning. Granted that the alimentary tract of the fly contains bacteria, one may suggest that it is less dangerous to

swat the fly and take chances on the one bacteria infested mess, than to have the fly continue to deposit the bacteria from its alimentary canal upon our food, our dishes, or wherever it chooses to rest. At any rate most individuals will be more choicé and particular about where they swat the fly, than the fly will be about where it deposits the contents of its alimentary tract. In spite of Mr. Carpenter's warning most of us will continue to swat the fly, if for nothing more than the satisfaction of it.

R

CHIPS

A long legged man has a greater life expectancy than a short legged man. Nature has fixed the former up so that he can make a home run in case of trouble quicker than shortly.

Broadcasting unspoken thoughts is the next leg in the "radio" game. The telepathic doctor is with us. To be a "Real Doctor" now requires accurate physical diagnosis of disease and to surmise what the patient is thinking of him, to have a psychic working basis of the "critter."

Gassing germs with chlorine gas shortens their life expectancy. Col. Gilchrist of the Army Medical Corps is reported to have confirmed the claim of the Chemical Warfare Service, that diluted chlorine gas is now being used successfully in the treatment of colds, influenza, bronchitis and pneumonia. It is used in a strength that kills the microbe and in no way is it injurious to the patient (?) Sometimes!

"Population tends to increase at a geometrical ratio through successive generations and hence would over populate the earth if not somehow kept in check." The medical man tries to thwart nature but the job is too big. It can't be did.

Chordotomy, to relieve the pain caused by cancer, is suggested by Drs. Spiller and Frazier, of the University of Pennsylvania. It consists in severing the nerve at the spine which supplies the part affected.

A worm has brains. Its brains are not located at either end of its body. But they are distributed in its abdomen. Man has evolved from a worm. The cult in religion and in medicine can now be accounted for by the unfinished evolutionary metastasis of the visceral ganglia.

The new discoveries of radiant energy and

its behavior is fast doing away with the elements or varying forms of matter. The proof is accumulating that there is but one primordial substance from which all varying forms of matter have been evolved. The new theory is to be worked out on the medical student to see if it energizes or enervates him in having to memorize one or many elements.

The "Perfection Hygienic" bed is "The Tucson." This bed recommends itself for its economy and convenience, also, the time of year is present for its use. In the Tucson bed the sleeper lies on the ground, on his stomach and covers it with his back.

Endocrine insanity is in the new nosology. This relieves the brain of some of its astigma. It also promises more cures, since safer therapeutic surgery can be substituted without disturbing the brain. The operation promises also to increase the anthropoid sense of the subject operated upon.

"Plasmolysin is the new cure for tuberculosis." "It consists of the inhalation of two separate gasses. The first gas opens the way, the bronchial tubes (gets the B out in the open) and the second gas kills the intruder." Dr. Dahmer of Berlin who made the discovery says that his remedy is based on experiments of two American doctors who discovered the radio activity of the protoplasm. Dollars to doughnuts it was two American Realtors from Los Angeles.

Removing the marrow from the long bones is a recent method of treatment in cases of pernicious anemia. Walterhofer and Schramm, Berlin, have reported twenty-three cases so treated during the past two years with very promising results. Instead of a scraping operation at first performed they have substituted an irrigation of the long bones by means of a current of fluid passed through small holes bored in the tibiae. Good results were obtained in 48 per cent of the cases in which other treatment had failed. The improvement occurring directly after the operation. This is not used to the exclusion of other treatment but varied with them. Regeneration of the marrow occurs very quickly. The operation does not seem to be dangerous, almost moribund patients stood it well. The duration of the improvement which results from the operation is uncertain.

Whether any useful purpose may be served by the observation or not, it is of some interest to know that the length of the intestinal canal on an average equals 10 times the sitting height; its average circumference is one-tenth the sitting height; so that the total area

of absorbing surface may be estimated as the square of the sitting height.

There seems to be some difference of opinion as to the islands of Langerhans being separate and distinct organs according to Swale Vincent (*Lancet*, May 10). He says they represent temporarily modified portions of the secretory tubules of the pancreas. The islets are anatomically continuous with the zymogenous tubes and the two kinds of tissue may be seen to merge one into the other. It has also been shown that during inanition and under other circumstances the amount of islet tissue is markedly increased. It has also been shown that large amounts of insulin may be obtained from the submaxillary gland of the ox, and that it may also be obtained from other organs and tissues of the body.

An explanation of the failure to relieve arthritis and neuritis by the removal of very grossly diseased tonsils, in some cases, is given by Lott in the Surgical Clinics of North America, February 24. He says: "It has been my experience that if we have a tonsillar focus predominantly streptococcic we will get good results from tonsillectomy in such conditions as arthritis and neuritis; whereas in cases of a tonsillar focus predominantly showing staphylococci and pyogenic organisms other than streptococci we will not get a cure of the arthritis or neuritis."

In discussing the probable functions of the gall-bladder in his Mutter Lecture (*International Clinics*, Vol. 1, 1924), J. E. Sweet concludes as follows: "The position of the gall bladder, the provision of two valvular structures at its outlet, which are mechanically designed to permit inflow and to hinder outflow, lead me to the conclusion that under normal conditions whatever passes into the gall bladder through the cystic duct never passes out again through the cystic duct. The demonstration of structures along the bile ducts which seem capable of taking over the function of the gall bladder, indicate that the removal of the gall bladder may not necessarily remove from the body the function of the gall bladder. The bile retained in the gall bladder is eventually absorbed and in this process of absorption it would seem that an unknown something passes into the blood or lymph which has to do with the breaking up the de-esterization—of the esters of cholesterol."

Trials on human subjects have confirmed the anesthetic and analgesic value of ethylene as demonstrated on animals. Deep surgical anesthesia is stated to be produced easily and analgesia comes on readily and apparently long before surgical anesthesia is established.

Given with oxygen, it has been found more powerful than nitrous oxide for animals and man, and in most cases as effective as ether. Trials indicate that ethylene is of value for the production of surgical anesthesia, and that it has advantages over nitrous oxide. Ethylene for anesthesia is supplied in the compressed state in metal cylinders. To avoid accidental explosion, ethylene must not be brought in contact with a naked flame or an electric spark. (*Journal A. M. A.*, May 17, 1924.)

Mead's powdered protein milk is a preparation having a relatively high protein content and a relatively low carbohydrate content. Each 100 gm. contain approximately protein 37 gm., butter fat 31 gm., free lactic acid 3 gm., lactose 19 gm., and ash 4.6 gm. When suitably mixed with water, powdered protein milk is said to be useful for correcting intestinal disorders of infants and children.

Compounds of silica have found a place during recent years among drugs of reputed value in the treatment of tuberculosis. In view of their extreme insolubility, one would scarcely expect them to exert any immediate pharmacodynamic effect. Nevertheless, there is evidence that silica finds its way into the tissues and organs and remains deposited, notably in connective tissues. This has given rise to the hypothesis that the element plays a part in determining the elasticity and tensile strength of fibrous tissues, although the smallness of the quantities of silica ordinarily found should make one extremely skeptical of the validity of any conclusion of this sort. Nevertheless, various silica-containing teas or drugs have been recommended in the hope that they would increase the amount or improve the quality of the connective tissue that forms the defense about tuberculous lesions. A study at the Sprague Institute in Chicago by Maver and Wells brought nothing but negative results through the administration of silica preparations to tuberculous animals. (*Journal A. M. A.*, May 17, 1924.)

Through the use of *Bacillus acidophilus* cultures a transformation of the intestinal flora of man from a proteolytic to an aciduric type can generally be induced. In cases of constipation beneficial effects in the direction of more ready defecations are said to arise. *Bacillus acidophilus* milk has attained the dignity of tentative recognition by the council of pharmacy and chemistry, though this must not be interpreted as a recommendation for the use of the product. Bearing on the question of how *Bacillus acidophilus* milk acts, experiments have been made which in-

dicade that the action is a strictly bacteriological one, and not physical or chemical. It was found that *Bacillus acidophilus* milk from which the bacteria have been removed was practically without effect in its influence on constipation. Regular *Bacillus Acidophilus* milk ingested subsequently resulted in an increase in the number of defecations. (*Journal A. M. A., May 24, 1924.*)

Ketosis is not confined solely to cases of diabetes. It is an accompaniment of carbohydrate starvation, however produced. Acidosis is not infrequently found in preoperative or postoperative conditions, owing to enforced deprivation of food for one reason or another. It is found accompanying so-called toxic vomiting, sometimes particularly in the persistent type seen in pregnancy. Attention has been called to the use of insulin in the treatment of nondiabetic acidosis. The alleviation of this condition through the administration of glucose by rectum or parenterally has been demonstrated. More prompt success has been reported through the combined use of insulin hypodermically and glucose intravenously. While the treatment gives promise, it is not free from danger. Insulin therapy demands care in the case of a diabetic patient. Doubly great is the need of intelligent precaution with the nondiabetic patient. (*Journal A. M. A., May 24, 1924.*)

—R—

Talks By The Prodigal

The skull is a metamorphosis of a vertebra. There appears to be no limit to transmutation. There is no limit to the modification of an organism. Hence the modification of the parts of an organism may keep on changing until there is no resemblance to its original self. Such a course of reasoning goes to prove that all organisms sprang from one parent stock. For example we are told that "all the parts of a flower—sepal, petal, stamen, pistil, with their countless deviations of contour and color, are but modifications of the leaf, such modification implies differentiation and development. If this same principle or law holds good in animal life there are no species. Man is related to all animal life in consanguinity. Hence "all forms of life whatsoever are modified descendants of an original organism." In fact, carried to its logical sequence and in the light of present day knowledge, what was formerly called dead matter is a myth. So called dead matter is in a state of constant flux. Scientists tell us that atoms are jazzing all the time. And they in turn are bombarded by electrons continuously.

The atoms and electrons get excited and show the mob spirit the same as animals, and this includes man. Judging from their va-

ried conduct the atoms and electrons get funny "hilarious." Respecting animal life Lamarck says: "All forms of life whatsoever are modified descendants of an original organism. From lowest to highest, then, there is but one race, one species, just as all the multitudinous branches and twigs from one root are but one tree. Similarity of structure implies identity of origin. That is one species of animal might have developed from another."

Such an origin, everything from one thing, reduces complexity to simplicity; diversity to unity; deduction to induction. Instead of eighty to ninety elements, one element—energy—and its varied modifications presenting different appearances. If so it will happyfy the medical student.

Geoffrey, the great English anatomist, was early impressed with the resemblance between the analogous organs of different classes of beings. He conceived the idea that an absolute unity of type prevails throughout organic nature as regards each set of organs. And out of this idea grew his gradually formed belief that similarity of structure might imply identity of origin—that, in short, one species of animal might have developed from another.

A misnomer is a misnaming. Calling a fat man skinny and skinny fatty is a misnomer. Somebody said at some time, somewhere and at some place "Nobody loves a fat man." Maybe it was Fatty Arbuckle (hush) who said it. True Fatty made a fatal mistake, but a most severe censor must admit that Fatty's plays were always moral and clean. The fat man is always happy or looks happy. Of course there is more of him and he can do nothing else with the superflinity of fat. However, new laurels have been heaped upon him lately.

The Pittsburgh Laboratory of the Bureau of Mines has been experimenting on the fat and lean man as to which of the two can endure high temperatures the longer, and the fat man won. The fat man loses more weight in hot weather than skinny, but he feels less exhaustion and the after effects of exposure than the thin man. Loss of weight increases with the temperature. Drinking ice water restores the lost weight and, given plenty of water and cool temperature, all weight lost is regained, usually, in twenty-four hours. Ice water when drunk freely, after exposure to high temperatures, normally produces no ill effects, the report says.

Fat being the lowest form of animal tissue and in the way, is dumped first to stop the leak, or to be gotten rid of as over-weight superfluous baggage, to lighten the load and

ease up on the demand for energy to supply the loss.

When the emergency passes and rest time is present, the fat forming habit begins depositing and restores the weight. It takes but little vital energy to make fat. The thin man has no fat resource and draws upon the essential structures of his body. These essential tissues are high grade in their make up and require more time to rebuild in order to function again normally in the system. Hence the exhaustion from loss of normal working tissue and the time required to rebuild it, to function properly, takes longer than to deposit fat and recuperation is slower.

—R—

Old "Doc" Attends the Meeting

RENIG ADE

As the meeting of the State Medical Society drew nearer Old Doc was more than ever minded to go, although a change of sleeping apartments, food and water had seemed to do his rheumatism no good the last few years.

Mother packed the old scuffed-up grip with the usual articles, knowing well that the clean shirts and the toothbrush would come home untarnished by use. With loving care each handkerchief and sock was neatly smoothed in place, and with equal tender solicitude a couple packages of Tiger fine-cut were placed conveniently on top. Aside from his allegiance to his own political party, nothing claimed Old Doc's devotion more consistently than fine-cut, a habit acquired in the days when chewing was considered the mark of a man, and to which he had steadily adhered despite protests from the more fastidious part of his family. Mother had long since become resigned to the tell-tale spatters on Old Doc's shirt-fronts.

For forty-five years Doc had been a fairly regular attendant at the state meetings, and his laugh had long rung clear and true through little bunches gathered outside the assembly hall where tiresome papers were being read by timid individuals with ingrowing voices.

When Doc had first started to attend the meetings years ago he had felt the urge of "brushing up," and would conscientiously sit for hours listening to a paper on the prophylaxis of sporotrichosis peri necrotica complicated by cystiarcus cellulosa.

He had even ventured to write a paper years before reporting a case of most unusual occurrence, closely simulating a rare tropical disease, manifested by weird gastric phenomena. He had illustrated his paper with lantern slides showing the father and mother ten years before perfectly well. He also showed a cousin who had worked in a rolling

mill back in Pennsylvania for thirteen years, and who had two children, alive and well, by his second wife. He had gone into the family history thoroughly, and the large number of lantern slides shown naturally attested the profundity of the effort. Unfortunately the slides were all run through upside down, but as everyone was practically asleep by this time the error was not discovered. The luster of the glory of this occasion was somewhat dimmed the next week when a traveling "doctor" with a silk hat exhibited on the street a large tape-worm, that had been secured via naturalis, and that had produced the syndrome of the rare tropical malady. Ever after, when tempted to dash into print, an ominous dream would deter Doc. In this dream this segmented joker would intrude itself and slowly undulate across the stage of memory accompanied by weird music played on a jewsharp by the healer in the silk hat sitting astride the court house.

However, Old Doc always encouraged the younger men to exhibit their literary wares to the society, and never failed to compliment them on the excellence of their essays. As he grew older he did this more and more often in instances where the reading of the paper had been postponed until the following day, while he, anturally, thinking the paper had been read while he was visiting in room 720 with an old college crony, would lavishly commend the effusion twenty-four hours before its appearance, much to the embarrassment of the author, who generally had been in practice about six weeks.

As the years rolled along the Doctor's acquaintanceship widened, and he found himself looking forward to the yearly meetings with a certain degree of longing. He would find about the same old faces, year after year, with occasionally one missing who had answered the call to bivouac. Younger faces took their place, and younger styles gradually made the old Doctor feel a bit uncomfortable. Cigar ashes had a most annoying way of parking on the front of his clothes, and a casual glance on most any occasion would show at least three or four buttons that were not functioning.

Nevertheless the younger men were very fond of the Old Doctor, and listened with complimentary attention while he told the same story over three times within a half hour. And when the slightly halting steps would try to negotiate the few steps of the hotel lobby, a jolly young sprout with a breezy burst of good fellowship would seemingly roughly slap the bowed shoulders—but cleverly guide the faltering feet that might become confused and fail the owner.

At the banquet Old Doc was as usual called

upon and introduced by the toastmaster, who played upon words and emotions with equal cleverness. In response Doc attempted to reply in the witty, humorous way of yore, but words failed on his lips, and his eyes became misty with tears before he sat down. We realized then that we would not have Old Doc with us at many more meetings—that the querulous “Where you located now?” with which he had regularly greeted us for several years, would probably need very few more answers.

The terrifying crackling exhibits of the beardless electric salesmen worried him, and he was inclined to sit in the hotel lobby and nod over his paper. He listened in a vague way to the scientific discussions of some of the papers, and felt that he was hopelessly lagging in the rear. He remembered when the old driving horse had been taken to pasture to make way for the temperamental one-cylinder car. The aeroplane buzzing high overhead he contemplated dreamily, and with but a faint conception of its mechanical construction. Far clearer to his mind's eye was the memories of the battle he had fought at bed-sides far from help or assistance, and the scanty remuneration that was usually the reward of these battles—and the long rides home on horseback through the drifts, with icicles clinging to his mustache, and the urgent call awaiting him to go ten miles in another direction—and the time a runaway team had thrown him out and fractured an ankle at 2 o'clock in the morning, with a 10-below-zero temperature, when he had had to improvise a crutch from a single-tree and hobble two miles alone before finding shelter and help—however, a frozen foot is not so very painful. These and many more things the Old Doctor dreamed over again as he sat listening to the droning voice of the essayist.

However, there was one gratifying feature of it all. Back in the little town where the Old Doctor had been “Doc” to everybody for fifty years there was a loyal coterie of friends who would always want him and no one else, and who were watching with ill-concealed concern the growing signs of approaching age in the one they were wont to lean upon.

And as “jerky” groaned and came to a stop in the old home town, and Old Doc lowered one cramped leg after the other down to the platform, put his arm lovingly around the little old lady with the beautiful blue eyes, and joked the station agent as usual, Old Bill Shiftless was heard to remark to a crony:

“Doc may be getting a trifle old, but he certainly does get away and learn all the new stuff.”

Notes From the Medical School

Dr. Russell L. Haden was awarded the J. D. Griffith prize for the best paper presented before the Academy of Medicine during the past year.

Dr. Arthur E. Hertzler has presented more than five hundred bound volumes of medical journals to the library of the Medical School. Those include a large number of valuable complete sets.

Dr. Ralph H. Major was elected to membership in the Association of American Physicians at their annual meeting at Atlantic City in May.

At the annual meeting of the American Medical Association at Chicago, the University of Kansas School of Medicine was represented by the following papers: “Results of Treatment in Four Hundred Cases of Congenital Syphilis,” by Charles C. Dennie and Hugh L. Dwyer; “The Value of Volume Index in the Diagnosis of Pernicious Anemia,” by Russell L. Haden; “Relationship Between Certain Products of Metabolism and Arterial Hypertension,” by Ralph H. Major; “Perinephritic Abscess as a Urologic Problem,” by Nelse F. Ockerblad; “An Unusual Fungus Occurring in Three Cases of Chronic Pulmonary Infection,” by H. R. Wahl. In addition to these papers presented, discussions were opened on other papers by Dr. Thomas G. Orr and Dr. Frank C. Neff.

The annual commencement exercises of the Training School for Nurses were held in the new Bell Memorial Hospital, May 22. A class of seven nurses were graduated. The graduating address was delivered by A. B. Carney, of the State Board of Administration.

Dr. C. I. Reed, Associate Professor of Physiology, has been awarded a National Research Fellowship for the years 1924 and 1925.

Dr. E. C. Rosenow of the Mayo Foundation, spoke before the students of the Medical School on “The Experimental Production of Chorea and Encephalitis in Animals.” The lecture was illustrated by moving pictures showing the movements of the animals while the experiments were carried on.

Dr. Frank C. Neff presented a paper on “The Newborn Picture in Achondroplasia” at the annual meeting of the American Pediatric Society, in Pittsfield, Massachusetts, on June 6.

Dr. Claude F. Dixon (1921) served one year's internship at the Bell Memorial Hos-



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pital and then went to the Mayo Clinic, Rochester, Minnesota, where he is now a member of the staff. The Journal of the American Medical Association, May 10, 1924, contained an article by Dr. Dixon on "The Value of Sodium Chloride in the Treatment of Duodenal Intoxication."

Dr. John Marion Renner (1922) has been recently appointed Resident Surgeon at the Cleveland City Hospital, Cleveland, Ohio.

Dr. George Edwin Cowles, (1921) is Resident Gynecologist of the New Haven Hospital, New Haven, Connecticut.

The Surgeon General of the United States Army has authorized the establishment of General Hospital No. 125, which is to be formed by members of the staff of Bell Memorial Hospital and graduates of the Medical School in recent years.

The officers of the Wyandotte County Medical Society for 1924 are Dr. Lewis G. Allen (1917), president, and Dr. L. L. Bresette (1918), secretary.

Dr. George E. Knappenberger (1911) of the Department of Roentgenology has received a leave of absence, and plans to spend the next eighteen months in European clinics.

Dr. Frank Billings of Chicago, spoke to the

students of the Medical School and also addressed the members of the Wyandotte County Medical Society during his recent visit to Kansas City.

Dr. Walter E. Dandy, Professor of Clinical Surgery at Johns Hopkins University, spoke to the students on May 9 on the "Diagnosis of Brain Tumors." His lecture was illustrated by a large number of x-ray pictures of the skull, demonstrating the value of his method of injecting the air into the ventricles for the localization of brain tumors.

Dr. C. B. Francisco (1907) Associate Professor of Surgery, sails for Europe June 26. He expects to visit clinics in England and Scotland during his trip.

Dr. C. C. English, of the class of 1908, died at St. Joseph Hospital on April 12 of heart disease. Dr. English was formerly superintendent of the Missouri State Tubercular Sanitarium at Mt. Vernon. For the past four years he was superintendent of the Arkansas State Tubercular Sanitarium at Booneville. His only surviving relatives are a brother in Western Kansas and a sister in Colorado.

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Justice for the Streptococcus

M. L. BISHOFF, M.D.

Topeka

Read before the Annual Meeting of the Kansas Medical Society at Wichita, May 7 and 8, 1924.

As an advocate for the little silent worker, the streptococcus, we come before you, as the jury, demanding active recognition of the numerous and varied types of this germ, of the extent of its pathogenic activity, and of this peril which threatens humanity. As an etiological factor in the production of human disease, the public is profoundly ignorant of the existence of this microbe, and the doctor's knowledge is only a passive recognition of this germ as one among a number of harmful pyogenic organisms that infect the human system. He has no conception of the extent of its activities in producing the morbid processes he is called upon to treat. There is no active recognition of the devastation caused by this germ in the way of organized resistance. There is not even a record of the mortality which it produces.

Through the ages of man's development, evolution has gradually made him the superior animal. At the beginning of authentic history man had no fear of being dethroned by any of the animals around him. Since that time, the application of science to the art of war has forever guaranteed the ascendancy of civilized man over barbarism. Today as civilized man absolutely dominates the animal world, we are inclined to assert that he is supreme. Microscopically he is. But what of the microscopic situation? We still see sickness, and suffering and death. In searching for the etiological factors our efforts have been gradually uncovering, with the aid of the microscope, a hitherto unknown enemy, the microbe; and he is still an unconquered enemy. Among these germs the most conspicuous for the extent of his devastation, is the streptococcus.

Bacteriological literature contains numerous references to the prevalence of the streptococcus, to the extent of his activities, and to the deadliness of his work. Jourdan, in his latest edition, says that few if any pathogenic organisms can lay claim

to wider or more multifarious activities than the streptococcus. Grey states that no group of bacteria can claim more varied and more numerous types of proved and possible pathogenic activity than the streptococci. Park and Williams write that the importance of the streptococcus outweighs all other disease producing organisms in their relation to human infection. Lattimore estimates that of all the infections that come to his laboratory for investigation, from sixty to sixty-five per cent are streptococcic. All of the other infections combined being less than the activities of this one germ. These quotations, though meager, are representative of the opinions of the scientific bacteriological and laboratory experts; and they give a fair idea of the antagonism of this germ to human life.

These germs have been known to the profession for many years. As far back as 1880 their constant presence in pus was noted; and the possibility of their being an etiological factor was strongly emphasized. As our knowledge of this germ and its activities has increased the diversity of the pathological conditions in which it is found has given rise to a difference of opinion as to whether all of these streptococcal infections are due to one specific germ or to a number of distinct species of the streptococcus. The question is still unsettled. At present the term streptococcus may be used to apply to a single type, or to an entire group of micro-organisms.

The virulence of the different strains of streptococci varies greatly. The factors upon which virulence depends have not been discovered. Two general types are usually recognized; the streptococcus viridans and the streptococcus hemolyticus. This is a laboratory distinction rather than a division of positive clinical value. In laboratory culture, the viridans produces a green halo around the colony; while the hemolyticus does not show a green coloring but produces a hemolysis. The hemolytic strain is usually found in generalized, acute, severe, and rapidly fatal septic processes; as distinguished from the localized, milder, and more chronic group of infections produced by the viridans.

From whatever angle you approach the subject of human infection, you encounter the streptococcus. In primary infections where it starts the trouble; in secondary infections where it is the major element of mixed infection; in focal infections where it remains localized; in obscure or unrecognized infections it is always streptococcic infection, over and above the combined field of all other pathogenic germs. To enumerate the conditions in which the streptococcus is a factor, primary or secondary, would be going beyond the limits of this paper. It would be giving you a catalogue of human diseases. For such a list I must refer you to the index of a modern work on the practice of medicine.

Of the primary infections erysipelas, meningitis, osteomyelitis, puerperal infection, endocarditis, and general septicemia may serve to illustrate the initial attacks of this germ.

In secondary infections I need but call your attention to the part played in tuberculosis, pneumonia, diphtheria, and small-pox to impress you with the part it plays in mixed infections.

In focal infections, Spangler found that in twenty cases of apparently healthy teeth, gums, and tonsils, sixteen produced pure cultures of streptococcus; in known infected cases the percentage was much greater and there were complications of arthritis deformans, myocitis, endocarditis, nephritis and similar conditions, all streptococcic in origin.

In the obscure or undiagnosed conditions where the clinical picture is that of an infection, we are justified in concluding that the big majority of the cases are of streptococcic origin because in the known cases the streptococcus plays the major part.

Walter states that systemic infection due to the streptococcus simulates many other diseases as, malaria, typhoid, and tuberculosis; and at times conditions so mild as to be diagnosed as neurasthenia and anemia. In nine out of seventeen cases diagnosed as neurasthenia, blood cultures showed positive streptococcus viridans.

Recent investigators have shown an etiologic relation of the streptococci to cholecystitis, gastric ulcer, erythema nodosum, herpes zoster, and anterior poliomyelitis. Many of these reports come to the profession at large as a surprise. They are not prepared to receive them and naturally are a little skeptical, awaiting confirmation by further investigation. However, these reports serve here to call atten-

tion to the still undeveloped field for modern research, and to the fact that as we progress, we are discovering that one disease after another has a germ as its etiological factor, and that germ is most frequently the streptococcus.

That this germ has received some attention and study is shown by our knowledge of its existence and of at least, a part of its activities. When this knowledge shows beyond question that today, the streptococcus is the greatest enemy of the human family, why does it not receive more consideration? Diseases like pneumonia, typhoid and diphtheria, are described as positive entities in recognition of germs of far less distribution and less virulence. Even in these diseases we have mixed infections in which the streptococcus is the destructive agent and the other germs get the credit for the work. We quarantine against measles, scarlet fever, small-pox, and diphtheria; but not for the streptococcus when our laboratory reports that 60 per cent of the cultures made for diphtheria prove to be streptococcic infected throats; while measles, scarlet fever, and small-pox are now placed in the list whose etiological factor is the streptococcus. We build hospitals and sanitariums for tuberculosis; and we construct isolation wards and institutions for other contagious diseases, but the microbe that kills more than all of these is still at large. We have publicity campaigns for cancer, and we decorate our Christmas presents and letters with tuberculosis stamps, but we provide neither information nor protection in the case of infection by the streptococcus. One of the anomalies of this subject is that there are no adequate statistics. In the morbidity reports of our State Board of Health, and the vital statistics of our nation, many causes of death are listed but this agent of destruction is not mentioned. Is this situation giving the little destructive germ recognition? Is it giving the public protection? Is it not time that our attitude should be active and not passive in dealing with this, our greatest known enemy?

In the control of infection, the streptococcic problem proves to be a big one. It cannot be accomplished in a day, nor can it be accomplished wholly by the doctor. The scientific investigator and the public must do their part. No specific therapy has as yet been discovered. Modern treatment is disappointing. Serums and vaccines have not proven generally beneficial. The patient's own ability to resist the in-

vasion is still his best protection. Yet, to start a campaign against this human enemy would require no startling innovation or radical departure from our modern laboratory methods and our scientific research work. The simple application of the methods used in controlling other pathogenic germs would be taking a tremendous step forward.

There is no reason why the doctor should not consider strepto-infections among the possibilities in making his differential diagnosis. His case records should show something of the frequency with which he encounters this infection, the extent of its activities, and some record of his success or failure in fighting it. The vital statistics of the state and the nation should reflect these records. They should be the basis of a publicity campaign, giving the laity a knowledge of the existence of this germ and some idea of how to protect themselves from its ravages.

Above all scientific research work should be promulgated that we may have a better knowledge of the life history of this microbe, of its distribution and of its means of invasion, that we may develop better methods of control.

Today the scientific physical world is agitated by the overthrow of the old atomic theory, and the substitution of a new idea of the formation of matter. The atom is no longer thought to be simply the smallest portion of inert matter. It is now regarded as a complicated organism, similar to our solar system; with molecules in motion dominated by an electrical or ethereal force surrounding them. It is matter plus energy so closely related that they may be interchangeable. In the scientific medical world, may we not look forward to the day when research work will in a similar manner take us another step forward in our struggle to control disease? In our study of the streptococcus we appreciate that there are many strains or specie of this germ; but what are the elements or the conditions that make it a puerperal infection in one case, and an osteomyelitis in another? Why is this germ a harmless invader of one throat producing no symptoms; while its invasion of another throat threatens life? As the atom is now considered to be matter plus energy, is it not possible that pathogenic conditions may be the germ plus some unknown element that may yet be discovered and lead to the happy day when disease will be positively controlled.

Practical Application of Chloride Determination in Well Water

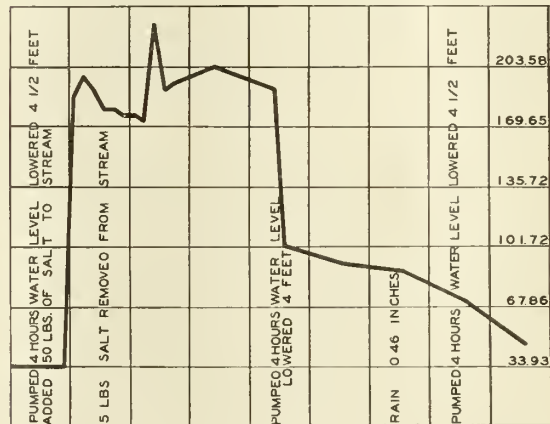
EARLE G. BROWN, M.D.
JOEL G. WAHLIN, A.B., M.A.
GEO. W. HILL, D.V.M.

Read at the meeting of the Northeast Kansas Medical Society, March 27, 1924, at Lawrence, Kansas.

This paper does not concern itself with any case history or clinical case but presents a single phase in the important field of preventive medicine or protection of the public health.

This paper concerns itself primarily with two things, first, a dairy in connection with which we must consider the water supply; secondly, an institution which has

CHLORIDE DETERMINATION IN WELL WATER



an Imhoff tank and the effluent empties into a ravine which eventually drains thru the dairy farm.

Our attention was directed to this condition in the latter part of September, 1923. The dairyman who had an average bacterial count on his milk running below 50,000 for the eight months previous, during the month of September noticed that the count had jumped to 250,000. In the course of a few days one of the firm was walking along the edge of the farm and detected a very disagreeable odor, due to an accumulation of the sewage in a pool in the ravine. A similar condition had existed during the early spring but had been remedied. The dairyman immediately notified our department and in company with Dr. Nyberg, secretary of the State Board of Health, an inspection of the farm was made.

The water supply was derived from a well located on the bank of a stream approximately seventy-five yards south of the milk house and the water was pumped to

the milk house by means of a gasoline engine.

We found the condition existing as the dairyman had described. The effluent was coming out of the sewer pipe, emptying into the ravine which drained through the dairy farm. At the time of our inspection, raw sewage was coming out of the sewer pipe. This was later explained by the authorities as due to a plug in the by-pass having been pulled, theoretically, by some boys who were going through the grounds. This allowed raw sewage to empty directly into the ravine instead of going through the tank.

The ravine winds around and there is a considerable drop in the depth owing to the slope of the land. From the point that the sewer empties into the ravine to the well is approximately 300 yards. Raw sewage in small quantities was found perhaps one-third of the way down the ravine. The odor of sewage was detected down the stream as far as the well.

The well had a rough wooden platform which was not watertight. By merely looking at the water level in the well and not measuring it, the water level of the well and stream appeared approximately the same. The platform of the well was approximately seven feet above the water level of the stream. We found therefore two things with which to contend; first, the water supply; and secondly, the fact that the stream took its course through the pasture where the cows would graze. We did not fear that the cows would contract typhoid fever but in wading through the water would have the mud and sewage from the ravine on their legs, tails and flanks and unless great care was exercised and they were thoroughly washed before milking, there was a possibility of contamination of the milk. There was also a possibility of the contamination of the utensils from the water, providing sufficient sterilizing solution was not used.

As a result of our visit to this dairy farm, a written order was given that the cows must be kept out of the ravine and that the use of the well water for washing the milk utensils must cease at once. The order gave them seven days to install pure water. In addition, at the expiration of this time we placed a lock on the well and kept the key in our possession. At the end of a week, as the farm was on the outskirts of the city, city water was installed and the ravine fenced off so that the danger of contamination was eliminated.

We then began a series of experiments with the water. It was contended by the authorities of the institution that the contamination from the well was due to overflow and that the primary contamination was from the cow lot itself, the slope of which drained to the well. It was our contention that the well was polluted from the stream, but of course, did not deny the possibility of surface pollution. Samples were secured from the well and the water examination showed gas in dilutions of 1 to 100 and a maximum bacterial count of 8,000. In addition we succeeded in isolating fecal *B. coli* and definitely proved that the contamination was due to this organism.

In addition, we wished to prove definitely that the contamination was coming from the stream and not entirely as a result of overflow. We did not deny the fact that if there was sufficient high water, it would enter through the top of the well. On October 5 the pump was started and run for four hours during which time the water level was lowered four and one-half feet. At one o'clock of the same day fifty pounds of salt in a burlap sack was placed in the stream approximately fifteen feet above the well. A sample of water obtained twelve hours following that time showed that the total chlorides had jumped to 187.92 parts per million. Approximately five pounds of salt remained in the sack which was removed at 1 o'clock on October 6. Chloride determinations were made at four-hour intervals for two days and at 9 o'clock on October 7, total chlorides were 231.42. On October 9, water was pumped from the well for four hours and the level lowered two feet. At the end of this time, total chlorides had dropped to 103.53. On October 11, rain fell, totaling 0.46 of an inch. On October 12 water was pumped again for four hours. Twenty-four hours following this time total chlorides had dropped to 49.59 or practically normal.

		Chlorides	
Date	Time	P.P.M.	
10- 3-23	1 p. m.	33.93	
10- 4-23	1 p. m.	33.93	
10- 5-23	1 p. m.	33.93	
10- 5-23	5 p. m.	33.93	
10- 5-23	9 p. m.	33.93	
10- 6-23	1 a. m.	187.92	
10- 6-23	5 a. m.	191.4	
10- 6-23	9 a. m.	190.53	
10- 6-23	1 p. m.	180.96	
10- 6-23	5 p. m.	183.13	
10- 6-23	9 p. m.	177.04	
10- 7-23	1 a. m.	177.915	

10- 7-23	5 a. m.	176.175
10- 7-23	9 a. m.	231.42
10- 7-23	1 p. m.	189.66
10- 7-23	5 p. m.	196.62
10- 8-23	9 a. m.	203.58
10- 9-23	9 a. m.	190.53
10- 9-23	1 p. m.	103.53
10-10-23	1 p. m.	93.09
10-11-23	1 p. m.	91.35
10-12-23	2 p. m.	73.08
10-13-23	2 p. m.	49.59

The laboratory procedure as used in the determination of chlorides was as follows: 100 c.c water was titrated with a standard silver nitrate solution equivalent to 0.5 milligrams of chloride per c.c. of silver solution, using a potassium chromate as indicator. The final results were expressed as amount of chloride in parts per million. This is the method recommended by the American Public Health Association in their standard methods of water analysis.

After the city water was installed and the possibility of contamination cut off from the well and stream, the bacterial count of the milk for the month of October was 35,000 and has since remained at an average level of 21,000.

CONCLUSIONS

The chloride determination is a comparatively simple procedure and was of value in this case in proving the source of pollution. Such a procedure as this may be used in determining contamination from a sewer. Of course, bacillus prodigiosus and fluorescein may be used. Occasionally all three methods may be used for the determination of contamination. We believe that the abolition of the well used in connection with the production of milk on this farm and the fencing of the stream solved the question of pure milk from the farm.

—R—

BELL MEMORIAL HOSPITAL CLINICS

Clinic of Don Carlos Guffey, M.D.

Department of Obstetrics and Gynecology

A CASE OF STERILITY

Sterility, like the poor, is with us always. Many a home is childless, not, as we so often unkindly remark, because a child is not wanted but because nature has not so blessed that home. Not fairy literature alone, but history itself is filled with instances of such tragic desire. The fault may be with either the husband or the wife. In 20 per cent of the cases the fault lies with the former. The causes of sterility in women are legion.

We recognize two types of sterility, that

in which no pregnancy has ever occurred, absolute sterility, and that in which a pregnancy has occurred but a period of barrenness has followed, relative sterility. We have to discuss today one of the more frequent causes of relative sterility. The patient is a colored woman, 22 years old, married, who comes into the hospital on account of pelvic pain and sterility. Her trouble began about seven years ago with pain in the lower left abdominal quadrant accompanied by burning on urination and a yellowish leucorrhoea. She had pain also in the lower lumbar region which radiated over the crest of the ilium. This pain was made worse by any form of exertion or manipulation or by even jarring the bed. So far as the patient remembers there were neither nausea, vomiting nor chills. She thinks she had fever. She was confined to the bed for over a month and has never felt well since. About five years ago (one year before marriage) a pregnancy was terminated artificially at the third month. About three and one-half years ago (six months after marriage) the patient had an attack similar to the one above described but the pain this time was worse on the right side. She was again confined to the bed for one month. Again the slightest jarring of the bed caused pain. Attacks of pelvic pain at irregular intervals, confining the patient to bed for one or two days at a time, have occurred ever since.

The present attack began three months ago with an exaggeration of the pelvic pain and marked tenderness over the lower abdomen. There has been a great deal of headache and backache especially at the menstrual periods. Formerly the menstruation occurred every 28 days, was of the 3-day type and was unassociated with pain; at the present it occurs every two or three weeks, is very free over a period of 5 days, is very painful and many clots are passed. The last period was two weeks ago but she is menstruating slightly again now. The patient is severely constipated. She has night sweats also. However, she has been gaining weight. There has been but the one pregnancy. Her personal and family history are negative except that her husband had a suppurating inguinal gland lanced about six months ago.

On general examination the findings are negative except as follows: A soft blowing systolic murmur is heard in the fourth interspace to the left of the sternum and there is an extra systole about every tenth beat. The blood pressure is 145/72. There

is slight tenderness over both lower abdominal quadrants on deep pressure. There is no enlargement of the glands of Bartholin, but there is slight redness of the external urinary meatus and the opening of the ducts of the glands of Bartholin. The cervix points somewhat anteriorly while the fundus is anterior and is slightly enlarged and tender. There is a soft mass about the size of a small hen-egg closely applied to the uterus near the right cornu. It is markedly tender. A less definite mass with less tenderness is found on the left side. The temperature and pulse are normal. Urinalysis shows a few white blood corpuscles. The blood examination shows: Erythrocytes, 4,760,000; haemoglobin, 68 per cent; leucocytes, 9,000; polymorphonuclears, 56 per cent; Wassermann, 4 plus. Blood chemistry: Negative. Clotting time, 2 minutes; bleeding time, 3 minutes.

SUMMARY

1. Repeated attacks of pelvic pain.
2. Burning on urination.
3. Creamy leucorrhoea.
4. Shifting of pain from left to right side.
5. Only one pregnancy, an induced abortion.
6. Irregular and increased menstruation.
7. Dysmenorrhoea.
8. Tenderness in the pelvis.
9. Pelvic masses in the regions of the tubes.
10. Reddened urethral meatus and gonorrhoeal maculae.

DISCUSSION

From the history and present findings we are led to believe that the first attack seven years ago was a gonorrhoeal salpingitis of the left side. Contrary to rule this was a one-sided affair. A pregnancy then occurred which was criminally aborted. Subsequent to this the gonorrhoeal infection passed to the other side. A bilateral sealing of the tubes then occurred resulting in permanent sterility. Subsequent attacks were but exacerbations of the old process. The irregular and free menstruation with clotting is due to the associated inflammation of the endometrium and metrium. The dysmenorrhoea is likewise due to this inflammation and not to obstruction. The obstructive type of dysmenorrhoea is usually congenital and is due to stenosis of the cervical canal or to acute anteflexion, either of the cervical or corporeal type. We believe that the tubes are sealed by an old gonorrhoeal in-

flammation which has now nearly subsided and, since there is a normal blood finding, it has probably become a double hydrosalpingitis. There is little use to test out the patency of the tubes because of the almost certainty of their closure. However that could be done safely. No attempt to determine the patency should be undertaken in the presence of any active inflammation in the uterus or tubes. The sealing of the tubes would be indicated by a pressure of 200 m.m. of mercury. The most accurate method is the Rubin pneumo-peritoneum apparatus with carbon dioxide, but Campbell's simple apparatus using air is reasonably accurate and safe. This latter consists of a male catheter with a rubber washer placed one inch from the internal end and attached to a Y-shaped glass tube with a bulb on one arm and a sphygmomanometer on the other. Air is then forced into the uterus by pumping the bulb. A pressure of 200 means undoubted sealing of the tubes. Of course rupture of the tube must be guarded against, but a pressure of 200 is considered safe. Since this patient has had so much pain an exploratory incision is indicated and the condition of the tubes can then be determined. The mass on the right is probably a cystic ovary around which is coiled a hydrosalpinx.

Our working diagnosis is, therefore, a subacute double salpingitis, gonorrhoeal in origin, with multiple graafian follicle cysts of the right ovary.

We shall now open the abdomen by a right rectus incision. We find the uterus anterior. The intestines and omentum are not adherent. The tubes are adherent to the posterior surface of the uterus and broad ligaments, the right is the larger. They are freed with great difficulty, indicating an old process. The right ovary is twice its normal size, and densely adherent to the tube. We shall take only a part of it out. This patient is particularly anxious to become pregnant, we must not forget that. Now that the ovary is resected we shall resect the tube about one inch from the cornu. The opening into the tube is very small but is found at the summit of the tubal end, in the center of the protruding muscularis. We shall attempt to pass a chromic suture into the uterus. We are lucky. We shall try to do likewise with the other tube. We are not sure that this gut on the left side goes into the uterus. It seems to meet an obstruction, possibly a false passage. These segments of chromic gut will be allowed to remain in situ,

in the hope that they may keep the tubes patent until healing has taken place. Chronic gut is chosen because of its absorbability but also because of its slow absorbability. This is about the tenth case that we have tried this method upon. We have had one positive success in a case of double salpingitis much more active than this. Possibly here all the epithelium has been destroyed and if so the chances of an ovum finding its way into the tube is very poor. We shall await the pathological report with great interest. One known successful case of pregnancy justifies the hope that many others will follow.

SUBSEQUENT CONFERENCE

The pathologist reports a bilateral chronic salpingitis with chronic oophoritis. The fimbriated ends of the tubes are sealed. The epithelial folds are hyperplastic and covered with a muco-sanguineous exudate. In many places the free edges are glued together. There are few ova to be seen.

This is not a very encouraging report. The left ovary seemed normal enough. Further, a chronically inflamed ovary when resected gives a chance for ova to escape. The tubes have lost much of their epithelium and there are pockets formed by the glueing together of the plications within the tubes. Have we exposed this patient to the possibility of an ectopic pregnancy, since we believe that these pockets are often responsible for such a condition? We hope not. Have we cured this patient of her pelvic pain and of her menstrual irregularities? We hope so. Have we made possible the fulfillment of her heart's desire? We again hope so. We can but await developments. Old Doctor Time is the best consultant.

Clinic of E. T. Gibson, M.D.

Assistant Professor of Neurology, University of Kansas School of Medicine

BRACHIAL PLEXUS PARALYSIS FOLLOWING THE USE OF ANTITETANIC SERUM

CASE REPORT

This patient, an unmarried woman of 53, applied for treatment November 2, 1923. She complained that she could not move her right arm well at the shoulder and that the muscles about the shoulder had wasted away.

She gives the following history. In June, 1923, a rusty nail pierced her right foot. She consulted a physician within two hours. He cleaned out the wound and gave her an injection of antitetanic serum between the shoulder blades. For over two days she

had no other symptoms except slight soreness at the point of injection. Then red intensely itching lumps, each about half an inch in diameter, appeared and gradually covered the entire body, including scalp, palms and soles. The eruption lasted about a week.

On the third day she attempted to wring out some clothes and found that her arms and hands were very weak and sore. On about the seventh day her forearms and hands became red and swollen. That night she was awakened at midnight by a smothering feeling and was unable to fill her lungs completely. She felt as if something were crawling beneath the skin of her whole body. Her arms were very weak and she felt sick and dizzy. All her muscles felt stiff and she had to use great effort to breathe and talk. After a few minutes she felt better but an hour later had another attack of the same kind. The same night she began having pain in the shoulders and felt as if the muscles of her shoulders and thighs were twitching, though she did not observe any actual movement. The pains were continuous and lasted several weeks, gradually becoming less intense. She was confined to bed about three weeks on account of pain and weakness. For several weeks she could not move her arms at the shoulders at all, but gradually improved until the latter part of July. Since then her condition has been stationary. At about the end of her stay in bed, four weeks after the injection of serum, the nails of her fingers and toes became dark and some of them fell off. The skin over her entire body came off in patches.

At the present time she has occasional pains in the shoulders. Movements at the shoulder are all present except elevation of the laterally extended arm above the horizontal, which she cannot do at all. Retraction of the extended arms is weak. The patient is able to use her hands and forearms perfectly well, but cannot do work which requires use of the entire upper extremity. She feels perfectly well in every other way.

PAST HISTORY

At the age of 23 the left ovary was removed on account of "displacement" and at the same time a cyst was taken from the tongue. The cyst had developed at the site of a bite on the tongue received in a fall. At 24 she had a severe attack of influenza which was followed by a nervous breakdown lasting several years. "I worried about everything and had aches and pains everywhere. Finally I got tired of being

a burden to everybody, went to work and recovered completely." Tonsillectomy in 1920. Influenza in 1920 with complete recovery. Menopause began two years ago during which time she was very nervous. For the year previous to November, 1923, she had been exceptionally well. She has never had any injections of serum previous to July, 1923.

PHYSICAL EXAMINATION

The patient is an intelligent woman who appears younger than her actual age. She is well nourished and her skin and general musculature are in excellent condition. There is no evidence of vascular disease either peripherally or in the eye-grounds. Her blood pressure is 130-85. Blood count and differential count and urine are all normal. Wassermann test of the blood serum is negative and the spinal fluid is normal to all tests. There is a slight knot at the site of the nail wound on the right sole. Movement at the right shoulder backward is very weak, and while the arm can be out-stretched horizontally with much effort, it cannot be lifted above the level of the shoulder. Attempt to do this causes the lower angle of the left shoulder blade to rotate backward from the chest wall. There is atrophy of the deltoid, supra-spinatus, infra-spinatus, biceps, and to some degree of the serratus magnus. There is no pain or tenderness and sensory disturbances are entirely absent.

SUBSEQUENT COURSE

In March, 1924, the patient reported that during the last three months the weakness had steadily diminished until she has become able to do her housework as well as ever. There was still some weakness in abducting the arm above the horizontal. The muscular wasting had disappeared except over the tip of the shoulder, which was still a little flat.

SUMMARY

A woman of 53, who had never had a previous injection of serum, was given antitetanic serum between the shoulders two hours after being wounded in the foot by a rusty nail. No symptoms of tetanus developed. Three days after the injection she had severe urticaria followed by multiple neuritis, with sensory, motor and trophic effects, and was kept to her bed for several weeks. The neuritis was most severe about the shoulders. After her acute illness she had paralysis with atrophy of some of the muscles innervated by the fifth and sixth cervical roots, which had nearly

completely disappeared nine months afterward.

LITERATURE

Reference to the literature indicates that amyotrophic paralysis following the use of antitetanic serum is rather an unusual accident. In conversation with men who made hundreds of such injections during the war, I have been unable to learn of a similar case in their experience.

S. C. Dyke, (*Lancet*, April 20, 1918, 570) reports a similar case and says that he had failed to find any reference to the accident in the literature.

L'hermitte (*Revue Neurologique* 1919, XXVI, 894-900) reports three cases, which he summarizes as follows (translated): The cases occurred in young soldiers from twenty to twenty-three years of age, free from all pathological antecedents and without any previous inoculation of serum, who following light wounds have each received an injection of antitetanic serum under the abdominal skin. Some days later, either suddenly or following urticaria, a paralysis of the right upper extremities developed referable to the lesion of the roots of the brachial plexus, which on examination has been easily localized. In each case the initial wound was slight.

Thoan (*Semaine Medical*, 1910) reported a case of "anaphylaxis" after the injection of antitetanic serum, followed by neuritis of the brachial plexus with a persistent paralysis of the serratus magnus.

Cauchoux (*Soc. de chirurgie de Paris*, June 5, 1912) reported a case in which two days following the administration of antitetanic serum there appeared severe pains following the course of the right radial nerve with nearly complete paralysis of the right upper extremity. Eighteen months later there was still complete paralysis and atrophy of the infrascapular muscle with reduction of sensibility to touch of the thumb and index finger. In this case the original injury was on the opposite side from the paralysis.

Marchal (*Archives Medicales Belges*, Liege, 1921, 74, No. 12, Dec.) mentions the occurrence of neuritis after the use of tetanus anti-serum, affecting the left shoulder. This patient had had a post-diphtheritic paralysis in the same region in childhood. The author thinks that the serum merely awakened the old affection, because he had given thousands of injections of antitetanic serum without any similar result.

Richardson, (*Journal A. M. A.*, 68, June 2, 1917, 1,611) considers that the multiple

neuritis following antitoxin which he reports was due to tetanus toxin and not to the effect of the antitoxic serum.

COMMENT

In rare cases the administration of antitoxic serum may be followed after an interval of two or three days by polyneuritis which may or may not be introduced by urticaria. There are severe pains, paresthesia, muscular weakness and, as in the case presented, trophic changes in the skin as shown by the eventual shedding of the nails and of the skin in layers. In the reported cases the brachial plexus has been most severely involved, and there has been a residual amyotrophic paralysis lasting for months but showing a tendency to recover. These effects occur in patients who have never had serum before. The location of the paralysis is not related to the site of the injury for which the antitoxin was given, but rather to the site of injection of the serum.

—R—

In Explanation

At its convention in Wichita, May 7th and 8th, the Kansas Medical Society, through its Councilors and House of Delegates, endorsed the group plan of malpractice insurance, after submission and explanation, by the Aetna Life Insurance Company of Hartford, Conn., through one of its representatives. A special rate of \$20.55 for (\$10,000—\$30,000) limits was offered and approved by the convention.

The Aetna Life Insurance Company has assets of \$260,152,435 and the company has been in existence for about three quarters of a century. The Aetna inaugurated the group plan about ten years ago and has about five hundred group policies in successful operation in the United States, many of which have been in force over a period of years. Membership in the group is limited strictly to members of the society. A master policy is issued and held by the society secretary as trustee. Each of the members who subscribe to the group receives a certificate entitling him to its benefits. This plan brings the doctors into closer personal relationship and creates a spirit of co-operation among the members of the profession.

Insurance under the group policy extends to the estate of an assured, and the policy covers so-called "contract work" and all other services performed in a professional way. It also includes claims upon an assured by reason of errors of omission and

commission on the part of all qualified assistants, including nurses.

The plan as explained by the Aetna representative fully covers the insured doctor for claims or suits brought against him because of his own acts or the acts of any assistant while acting under his instructions in the care of his patients. Any doctor whose practice is of such a nature that he does not feel he is fully covered by this contract can take out additional insurance to cover the additional hazards incident to his practice on account of "business" liability, that is liability by reason of ownership or other business interest in a hospital, clinic or other such enterprises.

The Aetna maintains a special and distinct department for the special study of the problems involved in malpractice insurance. That company is fully alive, through its long experience to the conditions to be met in this line of business, and their group plan makes a strong appeal to the good sense and business judgment of the medical fraternity.

If members have any doubt about how the group plan of insurance is construed they should write the Aetna Branch Office at Kansas City, 500 Gates Building, which will furnish full information.

—R—

No Time to Spare

It will soon be too late to protect the annual sufferers from fall hay fever by giving them a full prophylactic course of pollen extract; but it is not yet too late. The full course requires six to eight weeks, one injection being given every three or four days. By beginning early, severe reactions can be avoided, the first few doses being very small; and as every injection raises the patient's resistance, the gradually increasing doses that follow are usually as well borne as the first.

While most cases of fall hay fever are due to ragweed pollen, it is advised that a diagnostic test be made before the extract is given hypodermically, since this takes only a few minutes of the doctor's time. The test is a cutaneous one.

Parke, Davis & Co. offer to supply physicians with a booklet on Pollen Extracts. See their advertisement in this issue.

—R—

The orthodox physician practices physical science to the exclusion, almost, of mental science. The cult practices the reverse. The physician practices neither to the exclusion of the other. He realizes the importance of each and treats the dual man.

THE JOURNAL

of The

Kansas Medical Society

W. E. McVEY, M.D. - - **Editor**

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At the last meeting of the American Medical Association the secretary, in his annual report, called attention to the need for greater uniformity in the constitution and by-laws of county and state societies and the American Medical Association and recommended a reconstruction of the constitution and by-laws of all of them.

The organization is really a federation of state societies which are made up of county societies as units. State societies receive no charters from the American Medical Association, but each county society receives a charter from its state society. A uniform constitution and by-laws was recommended for state societies, as also for county societies, and was quite generally adopted at the time of general reorganization some twenty years ago. Naturally both state and county societies have found numerous occasions for amendment and revision. While the basic principles of the organization have not been changed there has been considerable modification in the relations between the society and the individual.

Dr. West said: "The rights and privileges of every member should be equal in every unit of organization, except as the need for the present classification of mem-

bers and fellows may affect the situation. Our plan of organization is intended to be, and is, thoroughly democratic, and must be so maintained."

Most of the difficulties at the present time seem to arise from the different requirements, or different interpretation of requirements, for membership. There has been, in Kansas at least, an increasing tendency to scrutinize more carefully all applications for membership and to reject candidates whose records are not without fault. This is not the result of amendments to the constitution and by-laws, as a rule.

County societies have given a more liberal interpretation to section 5, of chapter X of the by-laws which reads as follows: "Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this society and to the American Medical Association, every reputable and legally registered physician who does not practice, or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. . . ."

In the early history of the reorganized society it was the policy of those who conducted the campaign to admit to county societies every registered physician in the state. It is needless to say that many physicians became members of the society during that period that would not have been admitted prior to that time and could not gain admission now. It was found very difficult to eliminate undesirable members from the new organization and in most cases contrary to the theory advanced, these undesirable members were not easily held in line with the ethical principles of the society. The county societies have come to regard the first clause of section 5 as of considerable more importance than the remaining portion of the section; and are inclined to determine for themselves what constitutes a reputable physician.

It is perhaps true that occasionally a very reputable and worthy man may be excluded from membership, but this rarely occurs in the larger county societies. A

remedy for such cases was presumably provided in section 6 which gives an applicant the right to appeal to the council. While this section seems to be specific and definite it has been the custom for the council to refer all such cases back to the county society; first, because it has not seemed good policy to ask a county society to admit an applicant that has already been rejected by a majority of its members and second, because it is doubtful if under such circumstances such a member could be elected to membership in that society in spite of the decision of the council.

It is apparent then that a rejected applicant really has no recourse but to wait for a more favorable attitude of the society he wishes to join.

That provision in our reorganization, which made the county societies the only portals through which membership in the State Society and in the American Medical Association could be obtained, evidences a high degree of wisdom and foresight in those who formulated the constitution and by-laws. It cannot be questioned that a man's qualifications can be best determined, and his conduct can be best known by the members of the society in the county where he also practices. Should any man who has been rejected as unworthy of membership in the county society be admitted to the state society or the American Medical Association? Grant that there may be an exceptional instance where prejudice has played a large part in the action of the local society, there must be something in the conduct of the applicant to account for such prejudice.

County societies are growing in importance and in every county where there are enough physicians to maintain an organization, membership in the society is the best evidence of professional standing. The larger county societies in Kansas are generally recognized in their respective communities as officially representing the medical profession. Membership in these societies is regarded by the public as a guarantee of professional standing.

In most communities certain very desir-

able privileges are accorded members of the society, certain tangible benefits that are not only desirable, but that have an actual pecuniary value.

It seems a reasonable conclusion that membership in these societies should be worth considerable more than the mere nominal fee required for membership in county societies that have few members and occasional meetings. Membership in any of the larger county societies in Kansas is, from a business and professional standpoint, worth more than membership in any of the fraternal or civic organizations which cost anywhere from fifty to a hundred dollars. Since membership in a county society is also membership in the state society and the American Medical Association, it should carry with it equal privileges in all branches of the organization. Under such conditions membership in the organization whether obtained through a small county society or a large and influential one is certainly worth a great deal more than it now costs. When the admission fee to any branch of our state society is made one hundred dollars, membership in our organization will be appreciated and every member will be careful to conduct himself in harmony with its regulations and pay his dues with unfailing regularity and promptness.

If it is the purpose to provide greater uniformity in the constitution and by-laws of all branches of the association one of the most essential points to be considered is the portal for admission of members and the qualifications for admission. County societies will not willingly surrender their jurisdiction in this matter. Another point for careful consideration is the admission fee. In other words it will need to be determined if membership in the association shall continue to be cheap and easily obtained; if a standard of qualification shall be fixed that will admit every registered physician; if the fee for admission shall continue to be nominal only and fixed by constitutional provision for all branches of the association; and finally, if consistent uniformity in the constitution

and by-laws of all branches is to be maintained, to what extent must the jurisdiction now held by the county societies, be delegated to a central government.

— R — CHIPS

The death ray is said to be a projection of the x-ray.

Immunity to disease may be established in a measure by eugenics and euthenics. At any rate they are two of the smoothest roads mapped out as yet to gain time.

Diagnosis by radio is the coming fad and relegated to oblivion will be the methods of our Dad. The heart beat of a man in Pittsburgh, Pa., was heard in London, England. Photoing over radio enables the doctor to examine the tongue of his patient across the continent. The doctor is coming into his own. With a radio outfit in his office he will have to resort to a gymnasium and golf for exercise and joy riding to get fresh air.

Five hundred mothers died in childbirth or its results in California during the past year and 5,000 babies died prematurely. On a basis of 3,500,000 people in the state and 105,000,000 in the United States, the death rate in the latter was 15,000 mothers and 150,000 babies. No doubt but what there were many deaths in the state not reported to the "State Board of Health" of California.

The cults (irregular practitioners) are gaining in numbers either because they practice what the people want or because the orthodox physicians lack giving the people what they want.

The secret in teaching a student practical medicine is to have the subject, or subject matter, before him to demonstrate what the teacher is talking about and describing.

The danger line in the higher medical educational requirements is where the substance shades off into shadow. This applies to education in general. That is, spreading the mind out over so much territory that it becomes threadbare and fails to hold the warp and woof together and it leaves the goods more or less shoddy.

The vitamin has been nosed out of its living place. It has been discovered. Its composition is said to be five atoms of carbon, eleven atoms of hydrogen, one atom of nitrogen and three atoms of oxy-

gen in the molecule. Now we have time to look up the next unknown thing which is something else.

During the first four months of 1924, one hundred and three people were gilled in Los Angeles and twenty six hundred and sixty-seven wounded. Autos and pure, sheer carelessness accounts for the most of them. One is reminded of the old lady Mrs. Partington, of Civil War fame, when her son Ike was reading an account in the paper of accidental deaths, and she remarked, "It does seem to me so many people are getting killed now that were never killed before." There appears to be no sweet without a bitter.

Precociousness is the germ from which paranoiacs are grown.

Premature development of the mind is dangerous to its possessor.

The psychic exhausts the potential energy of the dual man and there is an imbalance. An abnormal mentality is a handicap to the entity. But of the two, a premature or a retarded development of the mind, the latter is safe for its owner and the community. Moral. Don't fret if your child is backward in its growth. But keep on tension if it is precocious.

A doctor has a vocation. He should have an avocation also. "All work and no play—or diversion—makes Jack a dull boy" and stultifies him. All play leads to the fool killers shambles or his partner—failure. The doctor who is interested in medicine alone and has no avocation or side line of interest and instruction for himself may be a good physician, but he cannot put the pep in his vocation, nor inspire his patients with the higher ideals that makes getting well worth while as successfully as he could have done had he broadened his professional attainments with cultural side lines, and thus be better prepared to harmonize the conflicting emotions of his sick patient as well as to relieve his physical ailment.

Synthergin is a prospective new school in medicine. Although it is but its handmaiden—dietetics. This new school has expanded, added to and transmographed the familiar aphorism—"Man is what he eats" and increased the scope of its meaning. In addition to what food makes a man, it can shape him if fed properly. For example, if a man is tall and thin and skinny and wants to thicken himself up a

little and shorten and round out, he can do so by confining his diet to round food, such as potatoes, tomatoes, berries, nuts and nips (turnips). Should he be short, round and obese he can thin out and elongate by eating long food such as celery, asparagus and "sich." One of these synthergists professors claimed to have lengthened a stubby man by feeding him asparagus until shorty's folks had to cut a trap door into the floor so he could stand up.

Edward B. Kaple, in a paper on "Observations Relative to the Spastic Colon," read before the American Proctologic Society, presented a study of the records of those cases of constipation who have consulted the writer, excluding those of an obstructive type due to malignant or benign growths, adhesions, or anatomical abnormalities, shows the spastic type to constitute over 30 per cent where it has been possible to include an x-ray study in making the diagnosis; if those cases which he believes to have been spastic, but was unable to definitely prove them so, are included, the percentage is even higher. If these figures are an approximate estimate of the comparative frequency of spastic constipation, then its importance becomes obvious.

He contends that if there be any truth in the idea of irritation resulting from gastric, intestinal, or gall bladder pathology, or even from a displaced kidney, producing a reflex spasm of the colon, that it is equally logical to assume that the irritation from lower rectal pathology may pass through the above nerve paths to the plexuses of Aurbach in the colon.

In view of his belief that rectal irritation is the most frequent etiological factor, the necessity for a complete and painstaking rectal and sigmoid examination in every case of bowel disfunction (persistent) becomes evident. The writer states that he has been unable to note any particular anal, rectal or sigmoidal pathology that of itself justifies a diagnosis of enterospasm, and that the value of such examinations is in the finding of areas of irritative pathology. Such pathology need not be serious nor extensive, but any condition provocative of local irritation, plus individual hirpersensativeness, may be sufficient. Special mention is made of irritable crypts.

J. F. Montague, New York, presented a paper on "Vaccines in the Treatment of Pruritus Ani" before the American Proc-

tologic Society from which the following extract was made: "Bacterial infection of the skin in a pruritic area is liable to occur in all cases. That it does not occur in 100 per cent of the cases is due either to efficacy of the local barriers, to invasion, i.e., the resistance of normal skin and mucosa to invasion, or to the efficacy of the immune powers of the body cells and plasma fluid to resist such invasion. When pruritus continues for any length of time the local barrier to infection is weakened or broken by the scratching and rubbing incidental to efforts at relief from the itching. This may be observed clinically in the form of excoriations or erosions. With such breaks in the skin bacterial invasion is rendered easy. The only factor which can prevent infection then is the immune powers of the cells and plasma fluid. When this is normal, invasion is successfully resisted. When it is not up to normal invasion is certain to occur. Hence the author urges the use of suitable vaccines in all cases of pruritus showing excoriations or abrasions. The object of such vaccines is to increase immune bodies to such an extent as to successfully resist and destroy invading bacteria. In such a situation the use of vaccines is an auxilliary curative measure. But to go one step further in the intelligent use of vaccines—they may be used as prophylactic against invasion in every case of pruritus for the reason that then should excoriations or erosions occur the immune bodies will be preponderant from the start and invasion will be rendered less likely. The author uses successfully a vaccine of those organisms which his bacteriological researches have proven the causative agents in such invasion, namely the *Staphylococcus albus* and *B. Coli*.

C. C. Mechling, Pittsburgh, Pa., in a paper on "Postural Defects Affecting the Rectum," read before the American Proctologic Society said in substance: A variety of pains referred to the ano-rectal region but of obscure origin, are believed to be due to a faulty sitting posture. These pains are referred through the sacral plexus. Orthopedists recognize four points in the spine usually strained and of these the lumbosacral region is the part most exposed to pain. Strain results from weight and pressure applied to the cocyx and sacrum from unnatural directions. The skin over the cocyx and sacrum show keratoses, while the usual keratotic areas

over the tuberosities of the ischia are absent. The diagnosis is made from the history of vague pains, the characteristic skin changes, and absence of lesions in the bowel.

Tests on waters, muds, slimes, and other weakly radioactive materials have been discontinued by the Bureau of Standards Radium Laboratory, and will be made henceforth only in cases of special importance. Such tests are not considered of sufficient public benefit to justify making them in a government laboratory, while there is thought to be some danger of the results being used in fraudulent or questionable advertising. Some of the materials submitted for test recently have proved to be about as radioactive as the Washington city water supply. The Bureau of Standards ventures no opinion as to how little radioactive material a substance may contain and still possess therapeutic value, as such questions must be settled by the medical profession. With many people, however, the mere statement that a preparation is "radioactive" is sufficient. They do not realize the importance of the amount of radioactivity, nor that most substances possess radioactivity in small amounts. Tests on preparations of sufficient strength to be of unquestioned therapeutic value are being continued as formerly.

The favorable effect of intercurrent fevers on mental diseases has been recognized for ages and is the basis of the treatment of various mental diseases by injection of nuclein, tuberculin, typhoid vaccine, and inoculation with malaria and relapsing fever. P. Courbon states that recession of mental symptoms in the presence of bodily disease is quite frequent and may be partial or complete. While in the case of acute manias and depressions we may be often dealing with coincidences, this is not so with chronic delusional insanities where one may observe repeated intermissions of the mental disturbances with each attack of some febrile disease. This has been noted in epidemics of typhoid fever in institutions for the insane. Courbon discusses the various possible mechanisms involved and considers the following the most rational explanation: The insane patients are controlled partly by diseased neurons and partly by normal ones, the former inhibiting the latter and producing a morbid mental state. Under the influence of physical illness these abnormal neurons are themselves inhibited, leaving the

mental control to the normal neurons. With the passing of the intercurrent disease, the abnormal neurons frequently recuperate, again assume the leadership and cause the mental symptoms to return. (*Nervous and Mental Diseases*, Bassoe, 1923, p. 234-235.)

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Proceedings of the Fifty-Eighth Annual Meeting of the Kansas Medical Society HELD AT WICHITA, MAY 7TH AND 8TH, 1924

MEETINGS OF THE COUNCIL

The Council of the Kansas Medical Society met in Room 228, Hotel Lassen, Wednesday, May 7th, 8:30 a. m. Meeting was called to order by the president, Dr. E. D. Ebricht. Those present were: Dr. C. C. Goddard, Dr. P. S. Mitchell, Dr. E. S. Edgerton, Dr. C. S. Kenney, Dr. J. A. Dillon and Dr. W. F. Fee, councilors, and Dr. J. F. Hassig, secretary. There being no business before the council, meeting adjourned subject to call of the president.

The council met and organized May 8th, 11 a. m. in the grill room of the Hotel Lassen. Meeting called to order by Dr. Alfred O'Donnell, the newly elected president. Following members were present: Dr. C. C. Goddard, Dr. P. S. Mitchell, Dr. O. P. Davis, Dr. E. G. Mason, Dr. C. S. Kenney, Dr. D. R. Stoner, Dr. George M. Gray, treasurer, Dr. W. E. McVey, editor of the Journal, and Dr. J. F. Hassig, secretary.

It was decided to make the next annual meeting at Topeka a three-day session, the first Tuesday, Wednesday and Thursday in May 5th, 6th and 7th.

A motion was made that Dr. W. E. McVey, Dr. Alfred O'Donnell and Dr. J. F. Hassig be appointed a committee of three to confer with the local committee on arrangements for the next annual meeting at Topeka, relative to the program, and report at the mid-winter meeting of the council.

On unanimous vote Dr. O. P. Davis was allowed a salary of \$300.00 a year as chairman of the Defense Board. This matter had been referred to the council by the House of Delegates, with full power to act.

On motion the secretary was instructed to pay his stenographer \$75.00 per month.

Dr. McVey's report as editor of the Journal was read and accepted, which follows:

During the year just completed we have added considerably to the contents of the Journal by some changes in composition. This addition to the reading matter in 12 numbers of the Journal amounts to 6,912 lines, which is equivalent to 67½ pages,

5½ pages per issue. This was done at a very small increase in the cost of printing. This enables us to publish more original articles and secretaries of county societies have been requested to send in to the Journal those papers of merit that are read at their meetings.

Regular reports of the meetings of county societies are very much desired. We have not so far succeeded in convincing all of the secretaries that the regular meetings of county societies may be of considerable interest to the profession generally.

We would like to have a column of personals every month, but this is impossible unless the secretary of each county society or someone else will supply the data.

The Credit and Collection Bureau which is conducted by the Journal office has failed to interest the members to the extent it should. During the past year only 30 members have sent in accounts for collection, but for these 30 members the bureau has collected \$15,284.00. The success of any co-operative business depends upon the extent of co-operation. We now have on our credit list the names of 4,280 patrons of the medical profession with definite information as to their ability and willingness to pay. If every member of the society would send his unpaid accounts to the society there would be no "dead beats" and every doctor would know, when called to a case, whether to expect pay for his services or not.

JOURNAL STATEMENT

Subscription, 1,600 members....	\$3,200.00
Sales and subscriptions, non-members.	57.35
Advertising.	4,398.00
Other sources.....	20.00
Advertising accounts due and payable.	358.50
	<u>\$8,033.95</u>
Printing Journal.....	\$2,182.75
Stock and stationery.....	764.95
Salaries and wages.....	2,721.00
Postage.	228.90
Miscellaneous, electros, etc.....	147.11
	<u>6,044.71</u>
	<u>\$1,989.24</u>

RECEIPTS AND DISBURSEMENTS BY THE EDITOR RECEIVED

Advertising.	\$4,398.10
Sales and subscriptions.....	57.35
Credit and Collection Bureau....	280.98
Other sources.....	20.00
Kansas Medical Society.....	1,800.00
Advertising accounts, due and payable.	358.50
Due on commissions, C. & C. B..	13.50
	<u>\$6,928.43</u>

EXPENDED

Printing Journal.....	\$2,182.75
Stock and stationery.....	764.95
Salaries and wages.....	2,721.00
Postage.	228.90
Credit and Collection Bureau..	141.64
Miscellaneous, electros, express, etc.	147.11
	<u>6,186.35</u>
	<u>\$ 742.08</u>
Photos Committee on History...\$	19.75
Office equipment and fixtures..	139.81
Advertising accounts due and payable.	358.50
Commissions due.....	13.50
	<u>531.56</u>

Cash on hand.....\$ 210.52

Report accepted and placed on file.

The proposition of indemnity insurance, presented to the House of Delegates by the Aetna Life Insurance Company, Hartford, Conn., by A. C. Huey, special agent, was accepted with the following clause added after the word "Society" in line 9 of the last paragraph: "And it is understood that the Kansas Medical Society shall not be bound in any way, nor be responsible for the collection of any premiums under this agreement."

Meeting adjourned.

MEETINGS OF HOUSE OF DELEGATES

House of Delegates met in the grill room, Hotel Lassen, May 7th, 5 p. m. On motion reading of the minutes of the last meeting was dispensed with.

SECRETARY'S REPORT

To the House of Delegates I desire to make the following report for year ending May 1st, 1924:

Balance on hand May 1st, 1923:	
Medical Defense.....	\$4,460.45
General fund.....	7,445.40
Total.	<u>\$11,905.85</u>
Cash received from all sources for year ending May 1st, 1924:	
Dues from members.....	\$4,863.00
Editor.	768.41
Total amount received.....	<u>5,631.41</u>

Total.	<u>\$17,537.26</u>
Amount expended for year ending May 1st, 1924:	
Medical defense.....	\$1,479.76
General fund.....	4,004.88
Total expenditures.....	<u>\$ 5,484.64</u>

Balance on hand May 1st, 1924.....	\$12,052.62
Statement of the standing of the two funds:	
Medical defense.....	\$4,601.69
General fund.....	7,450.93
Total.	<u>\$12,052.62</u>

This report shows that our society is steadily progressing, financially and numerically each year, showing an increase

in membership over the previous year. Our members now number 1,474, against a membership of 1,448 at the same date in 1923. It must be taken into consideration that we suffer loss in our ranks by death or removal of members to other states, and not only are the ranks filled, but added to.

This is a fine testimonial for each and every local secretary, and I feel grateful to them not only for their co-operation during the year, but for the manner in which they responded to my call for papers for this meeting.

Indeed, the response was so generous that it has been an impossibility to place all subjects on the program for a two-days' session, a fact which I exceedingly regret. To the officers and members of the state and county societies, I wish to express my appreciation for their generous help throughout the year and to thank the members and our honored guests who have so kindly contributed to the success of the program. Respectfully submitted,

J. F. HASSIG, *Secretary*

Report accepted and placed on file.

TREASURER'S REPORT

To the House of Delegates: I desire to submit the following report for year ending May 1st, 1924:

Balance on hand May 1st, 1923.....\$ 4,491.43
Third Liberty Loan Bonds....\$1,500.00
Second Liberty Loan Bonds... 3,000.00

Certificates of deposit, River-
view State Bank..... 1,500.00
2,000.00
2,000.00
5,500.00

Cash received from secretary:
July 19th, 1923.....\$1,086.41
February 14th, 1924..... 3,000.00
May 1st, 1924..... 1,545.00
Interest on bonds, certificates
of deposit and daily balance.. 334.70
Received from all sources..... 5,966.11

Total cash.....\$20,457.54

EXPENDITURES DURING YEAR FROM MAY 1st, 1923, TO MAY 1st, 1924

GENERAL FUND

Voucher No.	PAYEE	Amount
33	Whitehead & Hoag, Newark, N. J.	\$ 23.38
35	Dr. E. E. Liggett, Oswego.....	3.75
36	Dr. J. F. Hassig, Kansas City....	736.69
37	Dr. W. E. McVey, Topeka.....	1,800.00
38	Dr. T. Howard Plank, Chicago....	50.00
39	Dr. W. E. McVey, Topeka.....	22.22
40	Chamber of Commerce, Kansas City	18.95
41	Dr. O. P. Davis, Topeka.....	11.31
42	Dr. E. D. Ebright, Wichita.....	38.57
43	Dr. Geo. M. Gray, Kansas City....	125.00
44	Dr. F. A. Carmichael, Osawatomie	125.00
45	American Medical Ass'n, Chicago..	11.00

46	Dr. J. F. Hassig, Kansas City....	563.41
47	Dr. E. D. Ebright, Wichita.....	32.82
48	Dr. O. P. Davis, Topeka.....	11.55
49	Dr. L. W. Shannon, Hiawatha....	16.36
50	Dr. E. G. Mason, Cawker City....	29.66
51	Dr. C. S. Kenney, Norton.....	46.72
52	Dr. H. N. Moses, Salina.....	25.60
53	Dr. W. F. Fee, Meade.....	49.50
54	Dr. E. S. Edgerton, Wichita.....	36.82
55	Dr. P. S. Mitchell, Iola.....	17.88
56	Dr. D. R. Stoner, Ellis.....	45.78
57	Dr. C. C. Goddard, Leavenworth..	7.22
58	L. J. Schwartz, Kansas City.....	40.55
59	Kansas Bankers' Ass'n, Topeka....	7.50
60	St. Louis Button Co., St. Louis..	19.65
61	Evans Press, Printers, Kansas City	88.00

Total\$4,004.88

DEFENSE FUND

Voucher No.	PAYEE	Amount
18	Dr. W. E. McVey, Topeka.....\$	90.00
19	Dr. O. P. Davis, Topeka.....	5.00
20	E. D. McKeever, Attorney, Topeka,	100.00
21	E. D. McKeever, Attorney, Topeka,	75.00
22	E. D. McKeever, Attorney, Topeka,	100.00
23	E. D. McKeever, Attorney, Topeka,	100.00
24	E. D. McKeever, Attorney, Topeka,	100.00
25	E. D. McKeever, Attorney, Topeka,	100.00
26	Hays Flower Shop, Topeka.....	10.00
27	Dr. O. P. Davis, Topeka.....	11.30
28	Otis E. Hungate, Attorney, Topeka,	75.00
29	Dr. E. D. Ebright, Wichita.....	22.84
30	Otis E. Hngate, Topeka.....	99.47
31	Dr. C. C. Goddard, Leavenworth..	7.22
32	Dr. P. S. Mitchell, Iola.....	17.88
33	O. E. Hungate, Topeka.....	315.04
34	O. E. Hungate, Topeka.....	75.00
35	O. E. Hungate, Topeka.....	75.00

Total\$1,404.76

36 O. E. Hungate, Topeka, outstand-
ing, unpaid..... 75.00

Total\$1,479.76

General fund.....\$4,004.88

Defense fund..... 1,404.76

Total expenditures.....\$5,409.64

Certificate of deposit..... 2,000.00

Total\$7,409.64

Total cash.....\$10,457.54

Total expenditures..... 7,409.64

Balance in bank, subject to check....\$ 3,047.90

COMPARATIVE REPORT OF YEAR ENDING MAY 1st, 1923, AND YEAR ENDING MAY 1st, 1924

1923 Expenditures—

General fund.....\$3,711.25

Medical defense..... 1,220.96

.....\$4,932.21

1924 Expenditures—

General fund.....\$4,004.88

Medical defense..... 1,404.76

.....\$5,409.64

Difference.....\$ 477.43

1923 Balance in bank, May 1st..\$4,491.43

1924 Balance in bank, May 1st.. 3,047.90

Difference.....\$1,443.53

Report was accepted and placed on file. Treasurer was instructed to invest surplus funds in safe securities for ensuing year.

COUNCILORS' REPORTS

On motion the reading of the Councilors' Reports was dispensed with, and they were handed to the secretary for publication in the Journal.

FIRST DISTRICT

Dr. L. W. Shannon, Hiawatha—To the president and members of the State Medical Society I beg to submit the following report of the First District: During the past year the organized county societies have maintained their usual high standard in membership and congeniality. The secretaries of the following counties have responded with reports:

Atchison County—Twenty-one members in good standing with three eligible members of the profession who are not members of the society. Meetings are well attended every month in the year except June, July and August.

Brown County—Thirteen members paid up, with seven eligible members not paid up. Meetings held quarterly.

Doniphan County—Number of members in good standing, fourteen; membership 100 per cent. Meetings supposed to be held quarterly, but not regular.

Nemaha County—Number of members in good standing, thirteen; eight members of the profession eligible, but not paid up. An effort is made to have meetings every month.

Marshall County—Number of members in good standing, eleven; number eligible but not paid up, twenty-six. No regular meetings held.

Jackson County—Number of members in good standing, eleven; number eligible but not paid up, one. Meetings held monthly.

Jefferson County—Has no organization but affiliates with Leavenworth and Topeka.

Pottawatomie County—Has no organization, but affiliates with Manhattan.

Respectfully yours,

L. W. SHANNON, *Councilor*.

SECOND DISTRICT

To the House of Delegates, Kansas Medical Society: I beg to report the Second District to be in good condition with regular meetings of the separate units thereof.

Respectfully submitted,

C. C. GODDARD, *Councilor*.

THIRD DISTRICT

To the Councilors of the Kansas Medi-

cal Society: Chautauqua County reports at last that they are small in numbers but now well organized. This completes the organization of the Third District. All the counties are now well organized and in good working order.

Respectfully submitted,

P. S. MITCHELL, *Councilor*.

FOURTH DISTRICT

To the House of Delegates, Kansas Medical Society: The report for the Fourth District is practically a repetition of that of a year ago, except for some small numerical changes.

There are but two active county societies in this district, which are in fact, multi-county societies, viz., the Shawnee County Medical Society and the Lyon County Medical Society. These two societies take in the physicians residing in the surrounding counties, as well as those of the counties whose names they bear.

The Shawnee County Medical Society—the largest county medical society in the state—has 143 members, derived as follows: Shawnee, 115; Osage, 12; Jefferson, 10; Wabaunsee, 6. The Lyon County Medical Society has 32 members derived as follows: Lyon, 19; Chase, 5; Greenwood, 11; Osage, 1; Coffey, 1; Barber, 1; Morris, 1.

These two societies are very active, holding regular meetings, and always ready to do service for the general good of the community, as well as for the good of the profession.

Geary County is still quiescent—nominally organized, but so far as can be learned, inactive.

Respectfully submitted,

O. P. DAVIS, *Councilor*.

SEVENTH DISTRICT

To the House of Delegates, Kansas Medical Society: Rooks County is the only county in the district that is not organized. The doctors of the county belong to the State Medical Society, those in the south part of the county holding membership in the Central Kansas Medical Society, those in the north part of the county, in Norton-Decatur Society.

Osborne County is pretty well organized and all the doctors of the county belong to the society.

Jewell County is pretty well organized, in good working order, and all the doctors of the county belong to the society except one. I couldn't get any response from the secretary of Republic County.

Cloud County has twenty-one members in good standing and has a number of good

meetings during the year with some prominent speakers. They met with a great loss this year in the death of their president, Dr. Caton.

Washington County has seven members in good standing and six who are eligible but not members as yet. There is a good feeling in the county and they occasionally hold meetings.

Clay County is well organized, all the doctors in the county belong to the society except three. They have monthly meetings, and lectures by outside specialists several times during the year.

All the doctors of Mitchell County, except two, are members of the county society. There is a fairly good feeling among the doctors, and they have occasional meetings.

Respectfully submitted,

E. G. MASON, *Councilor*.

EIGHTH DISTRICT

To the House of Delegates: The medical organization of counties seems to be a problem, as to the method in which the physicians of the smaller towns and the rural communities will receive the greatest benefit.

This is the situation in the eighth district, in which there are five counties with three active county societies, one county active in a district society and the other county divided, some of the profession having membership in one neighboring county of the same district, the others in another district. Several efforts to organize this county have been made without material result.

Interchange of county meetings seems to be one of the best methods of eliciting interest on the part of the members. The dinner and the social feature plays a large part in working up the attendance. It has been the custom of late to have an outside speaker for the leading feature of the program, one of state or inter-state reputation. This has proven most successful in stimulating interest in the local society meetings.

There is a general feeling that something should be done to increase popular sentiment in health education, either by the state or county organizations. One county society is subscribing for Hygeia for every library in the county. To show that there is interest on the part of the reading public, there were many inquiries to the librarian whenever a copy of the magazine was late reaching the reading table. It should be the aim of all county societies to place this magazine in all high school libraries.

Effort should be made to have physicians

subscribe for their offices, to replace the traditional year-old magazines that so often occupy a prominent place on a doctor's reception room table.

One county (Ottawa) of this district, has a full time health officer and efforts have been made on the part of the Saline County Medical Society to establish one in Saline County, with the assistance of the State Board of Health.

In my conversation with various individual members I believe it to be the consensus of opinion that the medical defense of the state society is an outstanding feature for membership in the state organization. Many of the physicians of this district depend upon it, and are, almost without exception in favor of this plan of protection.

Much interest is being shown in this district at the present time, over news items in the local columns of one of the city papers, due to the fact that the doctors in a regular county society meeting voted to discontinue their cards in all the dailies. One paper now omits the title of doctor in all news items relative to a practitioner of medicine, although those of dentistry, the clergy and the medical cults are given the title of doctor. The physicians of that city are greatly amused and no attempt at retaliation has been made. This is mentioned merely to show to what extent the idea of commercialism enters into the mind of a business man not acquainted with medical ethics, or is biased in his belief and adherence to other methods of the healing art.

Respectfully submitted,

H. N. MOSES, *Councilor*.

NINTH DISTRICT

President, Council and Members of the Kansas Medical Society: The Ninth District, which I have the honor to represent as councilor of the Kansas Medical Society, is composed of the following counties: Smith, Phillips, Norton, Decatur, Rawlins, Cheyenne, Thomas and Sherman.

There are two excellent societies in the district; the Smith County with thirteen members, and the Decatur-Norton County, with forty-five. The district is well organized and a large percentage of the physicians eligible for membership are in one or another of the societies, with a few from adjacent counties.

Smith County has 13 eligible and 13 members; 100 per cent.

Norton County has 13 eligible and 13 members; 100 per cent.

Cheyenne County has 3 eligible and 3 members; 100 per cent.

Decatur County has 6 eligible and 5 members; 83 per cent.

Thomas County has 4 eligible and 3 members; 75 per cent.

Sherman County has 6 eligible and 4 members; 66 2/3 per cent.

Rawlins County has 5 eligible and 3 members; 60 per cent.

Phillips County has 12 eligible and 6 members; 50 per cent.

The district has 62 eligible, and 47 members; approximately 76 per cent. In order to stimulate interest in the Decatur-Norton County Society it has been the policy for some time to get an outside man as the guest of honor, to present some paper. The programs are gotten out in full and sent several days ahead of time; and two or three days before the meeting a follow-up card is sent. In that way, a large attendance is usually present. This seems to be a splendid plan not only to stimulate interest, but to get out the attendance as well.

Respectfully submitted,

C. S. KENNEY, *Councilor*.

TENTH DISTRICT

To the House of Delegates: I herewith submit my annual report of the Tenth Councilor District. This includes the counties of Wallace, Logan, Gove, Trego, Sheridan, Graham, Ellis and Russell.

The Central Kansas Medical Society, our district society is the only one maintained in this district.

Regular quarterly meetings are held, and the past year one joint meeting with the Golden Belt Medical Society has been held at Ellsworth. Our programs have included special talent from outside the district and state and the past year has been a record year for meetings, attendance, programs, clinics, etc. Have arranged for two joint meetings for 1924 at this time, with other societies.

Have visited every county in my district the past year and membership and enthusiasm has been the very best. We find the district society plan has been very satisfactory.

Respectfully submitted,

D. R. STONEB, *Councilor*.

ELEVENTH DISTRICT

To the House of Delegates: The Eleventh District representing Barton, Rush, Pawnee, Edwards, Hodgeman, Ness, Lane, Scott, Wichita and Greeley counties has had a very profitable year. Representing the district for sixteen years, and seeing the apathetic attitude of the profession in some places, I decided that possibly a new

broom might clean up some of the old cobwebs and instill new pep in localities that I had been unable to reach. With this in mind, Dr. Tapscott, of Rozel, Pawnee County, was elected last year. Being the only practitioner in his town it was very difficult for him to get away to look after the councilor duties; so he sent his resignation in, which was accepted, and I was re-appointed to fill the vacancy until a successor could be elected.

Coming as it did when my golf was taking on a finished form that was the envy of all my friends, it was with some reluctance that I accepted. Parenthetically, however, I might say that I had missed the old council gatherings. I had missed the jolly Wyandotte County Society meeting with its originality and pep. I had missed the fiery eloquence of Davis when arising to an imaginary point of order. I had missed the guttural irrelevancies of Goddard, and the out-law problems of Mitchell's unethical district, the journalistic dignity of McVey, and the optimistic adiposity of Kenney. These and the others I had missed and did not realize it until the time for the annual meeting of the council at Kansas City, Kansas, I could only raise my eyes and look to the east.*

Concerning the Eleventh District—As usual our banner society is Barton County Society. This included every medical man in the county, with a number of associate members from neighboring counties. Regular meetings have been held with some splendid outside talent, and the profession of the Eleventh District have come to look forward with interest to the meetings of the Barton County Medical Society. Pawnee County with its eight members meets twice a year.

Rush and Ness Counties have recently organized, and although limited in numbers we prophecy a successful future for them. We bid them welcome.

On account of the limited number of men in Lane, Greeley, Scott and Wichita counties, no efforts have been made of late years to organize these counties, each individual being allowed to affiliate direct with the state society, or contiguous county societies.

The Seventh Congressional District Medical Society which includes twenty-three counties in southwestern Kansas, has had a very successful year. The meeting last fall at Dodge City was well attended, and an excellent clinical program was held. The spring meeting at Pratt, April 25th, was also well arranged and all the civic clubs

co-operated with the local medical society in entertaining the visitors.

Larned will be the next meeting place and your humble servant as newly elected president, assures the Seventh District a good peppy meeting with possibly something unusual in the way of entertainment. Taken all in all the Eleventh District has had a good year.

Respectfully submitted,

J. A. DILLON, *Councilor*.

TWELFTH DISTRICT

To the President and Councilors Kansas Medical Society: As councilor of the Twelfth District I wish to make the following report:

During the last year I have visited some of the county societies but not all. Had made all arrangements to do so, but once I was hindered by a snow storm and the next time by a big rain. Had it not been for that, I should have gotten round to all of them. While I have not visited all of the societies I have kept in touch with them and so far as I know, all are working harmoniously, and most all eligible men are in the society. In this district I have to drive across country to Dodge City and Garden City, a distance of eighty miles, and I have to go when the roads are so I can, and on the day set for the meetings. It should be the aim of the members of the society as well as the councilors to solicit new members, so that the society may grow, and hope the society will grow more in this coming year than any year yet.

Respectfully submitted,

WILLIAM F. FEE, *Councilor*.

REPORT OF THE MEDICAL DEFENSE BOARD

Your Medical Defense Board begs to submit the following report of its activities during the past year. The report of its attorney is also submitted and is to be considered a part of this report. This summarizes the cases handled and pending, so that it is unnecessary to go further into that phase of the work.

The board suffered a severe blow in the unexpected death last fall of Mr. E. D. McKeever, who had been its attorney almost from the inception of the defense movement in our society. Mr. McKeever had been remarkably successful in the defense of our members, had won a large acquaintance and high regard among the medical men of the state, and his untimely death is deeply deplored.

The board chose, as successor to Mr. McKeever, Mr. Otis E. Hungate, a prominent

member of the Topeka Bar. Mr. Hungate has applied great industry to the work undertaken, which, added to his high legal ability and strong personality, has already brought him pronounced success in our work. We bespeak for him that confidence and support so long accorded Mr. McKeever.

An unusual accession of new cases marked the early months of Mr. Hungate's administration. The reason for this can only be surmised. If it was thought by any that Mr. McKeever's death would leave our walls undefended, there will be a surprise coming.

A statement of the board's expenditures during the past year is appended, and also a summarized statement of its expenditures for each of the past ten years.

The personnel of the board has changed more or less, from time to time during the past ten years, but during these ten years it has fallen to the lot of the present chairman of the board to be continued without interruption. He desires to interpolate into this report his thanks for whatever confidence on the part of the profession he has enjoyed, and now that he seeks to lay down his work on the board at this, the end of ten years' service in which he has worked purely out of love of the work, he wishes to bespeak for his successor, whoever he may be, that hearty support, and even occasionally expressed appreciation, which will be due to one working unselfishly, and without pecuniary reward.

It was hoped at one time that the defense movement could be so broadened as to take care of any possible adverse judgments rendered against members. This proposition, however, has met, from the very first, such outspoken opposition by even the very leaders of our profession, and has also brought out such a strong undercurrent of hostility to the present defense system from the same sources, that the board despairs not only of any wider scope to its activities, but even of the perpetuation of its existing limited field of service. Unless there is a hearty concurrence of support from all quarters of the society, it is the belief of this board that the defense movement should be entirely abandoned, and we so recommend.

Respectfully submitted,

O. P. DAVIS, *Chairman*.

D. R. STONER, C. S. KENNEY.

EXPENDITURES OF DEFENSE BOARD

1923

No.

19—O. P. Davis, postage, etc.....\$ 5.00

20—E. D. McKeever, salary for May....	100.00
21—E. D. McKeever, salary for April, (overlooked).	75.00
22—E. D. McKeever, salary for June....	100.00
23—E. D. McKeever, salary for July....	100.00
24—E. D. McKeever, salary for August..	100.00
25—E. D. McKeever, salary for September	100.00
26—Hays Flower Shop, flowers McKeever funeral.	10.00
27—O. P. D. Exp. and per diem Med. Def. Conf. K. C.	11.30
28—O. E. Hungate, salary October 22 to November 22.	75.00
29—Dr. E. D. Ebright, exp. Med. Def. Conf., K. C.	22.84
30—O. E. H. exp. and per diem Lyman vs. Colt and Colt, Manhattan, \$22.47; salary, Nov. 22 to Dec. 22, \$75.00.. 1924	99.47
31—C. C. Goddard, exp. Med. Def. Conf., K. C.	7.22
32—P. S. Mitchell, exp. Med. Def. Conf., K. C.	17.88
33—O. E. H., salary Jan. 22.....\$ 75.00 Hamblin vs. Bailey, 5 days.. 100.00 Lynch vs. Colt, 4 days..... 80.00 Exp. H. vs. B. 45.02 Exp., L. vs. C. 15.02	315.04
34—O. E. H., salary Jan. 22 to Feb. 22..	75.00
35—O. E. H., salary, Feb. 22 to March 22.....\$ 75.00 Exp. and per diem K. C., Cutright vs. Brittain..... 26.01	101.01
36—O. E. H., salary March 22 to April 22	75.00
Total.....	\$1,389.76
18—W. E. McVey, adv. in Journal, outstanding from last year.....	90.00
Total.....	\$1,479.00

EXPENDITURES MEDICAL DEFENSE BOARD 10 YEARS—BY YEARS

1914-15	\$ 1,254.95
1915-16	1,189.27
1916-17	777.45
1917-18	809.58
1918-19	759.41
1919-20	1,245.51
1920-21	1,458.35
1921-22	1,236.08
1922-23	1,310.96
1923-24	1,389.76

Total, 10 years.....	\$11,431.32
Average per year.....	1,143.13

REPORT OF ATTORNEY FOR DEFENSE BOARD

Medical Defense Board, Kansas Medical Society: On October 22nd, 1923, I was employed by your board as attorney on account of the death of the late Honorable Edwin McKeever who had been attorney for the board for several years and up until his death. At that time there were pending certain malpractice cases in which the board had assumed defense and these cases were turned over to me to handle. The cases turned over to me and later proceedings therein are as follows:

Mr. V. H. Hamblen vs. Dr. Sanford Bailey. Pending in the district court of Finney County, Kansas. Suit for \$15,000 damages for alleged malpractice in the treatment of a fractured thigh. Defense, general denial, contributory negligence on account of failure of patient to follow reasonable directions of surgeon. Trial at the January, 1924, term at Garden City, Kansas, January 17, 18 and 19. Verdict for defendant. Motion for new trial and for judgment on special answer of the jury overruled. No notice of appeal filed.

Marjorie Lynch, a minor, by J. Lynch her next friend, vs. Drs. J. D. Colt and J. D. Colt, Jr., pending in the district court of Riley County, Kansas. Suit for \$15,000 damages for alleged malpractice in the treatment of both bones of the forearm. Defense, general denial, contributory negligence in failure of patient to follow reasonable direction of surgeon. Trial January 21, 22 and 23, 1924. Verdict for defendants. Motion for new trial overruled. No notice of appeal filed.

Sam J. Parr vs. Dr. R. C. Young, pending in the District Court of Cowley County, Kansas. Suit for \$20,624.00 damages for alleged malpractice in the treatment of forearm. Defense, general denial, contributory negligence on account of failure to follow directions of surgeon. Issues are made up and case triable at the June, 1924, term.

Elmer Higginbotham vs. Dr. J. T. Warner, pending in the District Court of Linn County, Kansas. Suit for \$10,000 damages for death of plaintiff's wife, alleged to have been caused by the malpractice of defendant in the treatment of plaintiff's wife in and following confinement. Issues are made up and suit triable at the July, 1924, term of the court.

Katherine Addler vs. Dr. A. E. Hartzler, pending in the District Court of Harvey County, Kansas. Suit for \$46,642.00 for alleged malpractice in leaving fragment of surgical needle in skull of plaintiff after operation in December, 1912. Petition filed July 30, 1923. Motions levelled at this petition resulted in two amended petitions having been filed and the case is now pending on a motion to make the second amended petition more definite and certain. Defense will be general denial and statute limitations. Suit triable in November, 1924, term of the court.

In addition to the foregoing there were pending the following cases in which I had been consulted by the plaintiff prior to my

employment, which prevented me from appearing for the defendant. In these cases the defendants are being represented by Mr. W. E. Atchison, of Topeka, Kan., to whom they were turned on an arrangement with the secretary of the Defense Board.

William E. Montgomery vs. Dr. C. L. Williams, pending in the District Court of Shawnee County, Kansas. Suit for \$10,000 damages for alleged malpractice in the use of a probang in the oesophagus of plaintiff. Issues made up. Case triable at the present April, 1924, term of the court. This suit has been pending since October 31, 1922, and no activity on part of plaintiff's attorneys to press the matter for trial.

Feen P. Hedrick vs. Dr. A. F. Harrison pending in the District Court of Shawnee County, Kansas. Suit for \$5,000 damages for alleged malpractice in leaving fragment of surgical needle in wound on plaintiff's thumb. Issues made up. This action has been pending since August 11, 1922. No activity on part of plaintiff's attorney to press suit.

The following are cases brought since October 22, 1923, in which I am representing the defendants for your board.

Tom Moore vs. Dr. A. M. Garton and Dr. L. D. Johnson, partners, pending in the District Court of Neosho County, Kansas. Suit for \$35,223.51, damages for alleged malpractice in the treatment of fracture of both bones of the lower limbs and the ankle of the left leg. Defense, general denial and contributory negligence in failure of patient to follow the reasonable directions of the surgeon. Issues made up. Case triable at the present May, 1924, term of the court.

W. E. Cutright vs. Dr. O. R. Brittain, pending in the Saline County District Court. Suit for \$10,500 damages for alleged malpractice in the infliction of x-ray burn. Issues made up. Defense, general denial. This case was triable in the April 1924 term and was set several times. Plaintiff recently died and action thereby abated and no proceedings have been taken to revive. Deposition taken at the Mayo clinic show x-ray treatment there since last treatment by Dr. Brittain and at the time of the Mayo treatment no evidence of burn or skin injury. Report of commission appointed by the court to examine plaintiff will show same fact. My opinion is that the suit never will be revived.

Dr. C. J. Miner, plaintiff, vs. A. B. Stockwell, defendant, pending in the District Court of Pawnee County, Kansas.

Suit brought by Dr. C. J. Miner, plaintiff, against the defendant to recover his compensation for the performance of two cataract operations. Cross petition by defendant, A. B. Stockwell, for \$10,000 damages for alleged malpractice in the performance of said operations. Cross petition claiming insanity and blindness following operation. Issues made up. Defense to cross petition, general denial. Suit triable at the November, 1924, term of the court.

Mary Murray vs. Dr. O'Dell Williams, pending in the District Court of Lyon County, Kansas. Suit for \$1,080 damages for alleged malpractice in the treatment of broken arm of plaintiff. Issues made up. Defense general denial and contributory negligence. Case triable at the May, 1924, term of court.

James W. Smock vs. Dr. L. A. Corwin and Dr. W. G. Bouse, pending in the District Court of the United States, First Division. Suit for \$10,000 damages for alleged malpractice in the treatment of fractured femur and dislocated patella. Answer filed. Defense, general denial and contributory negligence on the part of the patient in his conduct after treatment of the defendants terminated. Suit triable at the October, 1924, term of the Court at Leavenworth, Kansas.

Anise Boyd vs. Dr. Malcolm Newlon and Dr. J. M. Sutton, pending in the District Court of Lincoln County, Kansas. Suit for \$10,000 damages for alleged malpractice in the treatment of fractured femur. Defense, general denial. Answer due May 15th, 1924.

S. W. Bloyd vs. Dr. Malcolm Newlon, pending in the District Court of Lincoln County, Kansas. Suit for \$5,000 for expenses of plaintiff and lost services of his wife on account of alleged malpractice of defendant. Petition just filed. Have not yet received copy of summons and cannot give the answer day.

In the trial of the two cases of Hamblen vs. Bailey and Lynch vs. Colt I was impressed with the importance of the use of the x-ray in the treatment of fractures whenever an x-ray machine is reasonably available. In both of these cases the fracture was reduced under the fluoroscope, but this does not perpetuate the evidence of the character of the reduction. In the first case mentioned the x-ray picture of the injured limb was taken shortly before the patient left the hospital, but unfortunately, this picture was lost and we had to depend upon

secondary evidence to prove what the picture showed.

In the second of the two cases the fracture was reduced and the injured arm examined by the defendant through the fluerscope, but no x-ray picture was taken. While the use of the fluoroscope enables the surgeon to know himself whether his reduction has been satisfactory, and whether the condition is satisfactory as the repair continues, it does not furnish the character of evidence that an x-ray picture does. My recommendation from my experience from these two cases is that whenever possible an x-ray picture should be kept showing the condition of the fracture at the time of the last treatment by the surgeon.

In conclusion I desire to thank the members of the board for their considerate treatment, and the members of the profession generally, who have generously given me their time and advice in regard to the defense of these actions.

OTIS E. HUNGATE, *Attorney.*

Report accepted and placed on file.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Dr. W. S. Lindsay, chairman, gave the following report: To the House of Delegates, Kansas Medical Society—Your Committee on Public Policy and Legislation reports, viz: There having been no session of the legislature this year, we only offer suggestions for next year. While we appreciate the handicap that the medical profession suffers in any suggested legislation, we feel that it is our duty to the public to use all earnest effort to the end that all persons who attempt to treat a human being for pay should pass an examination demonstrating their knowledge of anatomy, physiology, chemistry, pathology and bacteriology, given by one board.

We ask that our various boards of health institute more rigid enforcement of the laws on quarantine of contagious diseases; also the law against drugless healers using drugs in the practice of their profession; also the laws on sanitation in cities of the first, second and third classes.

We have considered the question of standards of medical education including the argument that many of our most capable prospective medical students consider the six years of preparation and the incidental expenses after at least two years of college work, a heavy load to carry. In contrast to this, various cults send out their representatives in a serious business com-

petition. In view of all this, however, we feel that our duty to ourselves and to the public requires that the present standard be maintained.

We urge members of the society to communicate with this committee in regard to any policy or legislation they may desire and also to confer with members of the legislature in their respective districts. We commend the American Medical Bulletin in its comprehensive effort at education, both of the public and the medical profession.

Respectfully submitted,

W. S. LINDSAY, *Chairman.*

Report accepted and placed on file.

REPORT OF THE COMMITTEE ON MEDICAL SCHOOL

Dr. L. F. Barney, chairman, gave the following report: The Committee of the Kansas Medical Society on the Medical School in session at Kansas City, Kansas, desires to report to the society that with the limited time and information at their disposal hereby make the following recommendations:

First—That the Committee on Medical School for the ensuing year be named as soon as practical in order that they may have ample time for investigation.

Second—The school being in need of increased facilities for the clinical teaching in many of its specialties due to lack of financial support, we hereby urge each and every member to use his influence with the legislature members in his district, to obtain adequate appropriations to put the school on the same high plane as the other departments of the university and the other state schools.

Third—In order that closer co-operation between the different departments of medicine may be effected and a more practical course of instruction be given, we recommend that as soon as practical, and facilities may be obtained, that the entire medical course be given at Kansas City, Kansas.

Fourth—Realizing that in spite of the limited facilities and cramped quarters of the institution as it exists at present, we commend the faculty on the fact that the graduates are on a par with the other class A schools.

Respectfully submitted,

L. F. BARNEY, *Chairman,*
ALFRED O'DONNELL,
C. H. JAMESON,
L. S. NELSON,
W. M. MILLS.

Report accepted and placed on file.

Dr. George M. Gray, chairman of the Committee on Hospital Survey, gave a verbal report of the work of the committee.

REPORT OF THE COMMITTEE ON MEDICAL HISTORY

Dr. W. E. McVey, chairman, gave the following report: Your Committee on History has to report considerable progress toward the completion of the work it was appointed to do. Photos have been secured of forty-eight of the fifty-nine presidents of the society and sketches of the lives of fifty-three have been secured. These photos and sketches have been transferred to the album which we were instructed to prepare. A list of those of whom we have not yet secured photos, also a list of those whose life sketches are still missing, follows:

Those of whom we have so far been unable to secure photos are:

S. B. Prentiss.....	1859
C. A. Logan.....	1866
Albert Newman	1867
John Parsons	1868
Mahlon Bailey	1869
H. K. Kennedy.....	1873
J. H. Stuart.....	1881
G. W. Halderman.....	1882
C. C. Green.....	1889
J. W. May, Sr.....	1902
J. W. May, Jr.....	1916

Those of whom we have been unable to secure life sketches are:

C. A. Logan.....	1866
Albert Newman	1867
John Parsons	1868
H. K. Kennedy.....	1873
C. C. Green.....	1889
C. Klippel	1920

In addition to securing these photos and sketches for the album, your committee has undertaken to compile, from the records available, a history of the society in which will be included all official acts of the society as such, changes in its constitution and by-laws, resolutions adopted and its activities in the legislative and administrative affairs of the state. This has been partially completed and if deemed advisable will be published in serial form in the Journal.

W. E. McVEY, *Chairman.*

Report accepted and placed on file.

Committee on Scientific Work presented the program as evidence of their activity.

REPORT OF THE COMMITTEE ON NECROLOGY April 15, 1923—April 15, 1924

Committee on Necrology gave the following report: Since the report at the Kansas City, Kan., meeting in 1923, the Committee on Necrology has received information as to the deaths of fifty-one physicians in Kansas. This information was obtained from the Kansas Journal, The American Medical Journal, from obituary notices in daily papers, from correspondence with the secretaries of the county societies, and other physicians in the communities where the deaths occurred.

Of the sixty-one local societies, twenty-eight report no deaths, sixteen report twenty-four deaths, seventeen make no report. But from other sources it was learned that in eleven of these seventeen not reporting there was a total of nineteen deaths. In the unorganized districts there were eight deaths making a total of fifty-one deaths.

Following the rule of adding two per cent to the number of deaths reported, on account of delayed reports, and possible omissions, we may estimate the total number of deaths at fifty-two.

According to the card index of physicians of the state, kept by our society, there are 2,304 physicians in Kansas. Thus these 52 deaths are equivalent to 22.5 per thousand. The Board of Health reports the percentage of deaths per thousand among the people throughout the state is 10.9 for the year 1923, less than one half the per cent among the physicians. According to the Journal of the American Medical Association, the annual death rate of physicians in the United States and Canada for 1923 was 17.95 per thousand. Therefore it will be seen that our death rate this year is again considerably higher than the average for the profession in the United States and Canada.

Of the fifty-one whose deaths were reported, twenty-six were members of the society, three were former members retired, ten were non-members and twelve were not given. Thirty-three were in active practice, and eighteen were retired, or very old.

Of the fifty-one decedents, one was 31 years old, nine were between 40 and 49 inclusive, sixteen between 50 and 59 inclusive, five were between 60 and 69, ten were between 70 and 79 and ten were between 80 and 89. Of those 80 or over, one was 80, three were 82, one was 85, two were 86, one was 87, and two were 89 years old.

The cause of death was given in twelve

instances as senility. Heart disease caused six deaths, cerebral hemorrhage seven, auto and train accidents four, kidney disease three. Arterio-sclerosis, pernicious anemia and carcinoma, two each. Pneumonia, gastric ulcer, tuberculosis, diabetic gangrene, cardio-renal disease, accidental poisoning, and suicide, one each. In six instances the cause of death was not given.

The length of time from graduation in one case was three years. Five were graduates more than ten years and less than twenty, fourteen more than twenty and less than thirty. Eight were graduated more than thirty and less than forty, eleven were more than forty and less than fifty years ago. In five instances the time of graduation was not given.

The positions of honor and trust held were various. Two were ministers of the gospel. One had been a member of the legislature, one had been mayor of his city, two had been members of the school board, one had been city health officer, one police surgeon, four had been coroners. One had been on the pension board, one on the local examining board in the late war. Six were Civil War veterans. Six were veterans of the World War; of these, one served with the rank of captain, two as lieutenants, one as lieutenant in the navy and two whose rank was not given, one of whom served as a Red Cross surgeon in Siberia. One was chief surgeon of the National Military Home. One was chief surgeon for a life insurance company, two had been local surgeons for railroads. Several were mentioned as Masons and Knights Templar, and one founder of the Scottish Rite in Kansas City. One was founder of the Rotary Club in Leavenworth, and several were Rotarians. One had been a lecturer at the Kansas City Medical College, one had been professor of gynecology and one assistant professor of internal medicine of the Medical Department of Kansas University. Five were mentioned as president or former president of their local county society, and one was councilor for his district. One was a member of the American College of Surgeons.

The dates of deaths by month, were as follows: Three occurred during the last half of April, 1923, and the first half of April, 1924. Three occurred in May, five in June, two in July, six in August, three in September, four in October, eight in November, one in December, six in January, six in February and four in March.

The mortality was greatest in November,

January, February and August. Cardio-vascular disease, including cerebral hemorrhage and arterio-sclerosis caused sixteen deaths, a little less than one-third the total number. Next to this came senility, with terminal conditions, causing twelve deaths. Automobile accidents caused four deaths. These were pitiable because preventable, and occurred to men in full possession of their powers and active in life.

105 COUNTIES IN THE STATE OF KANSAS Of the Sixty-one Local Societies To Report

NO DEATHS

1. Allen	15. Linn
2. Bourbon	16. Lyon
3. Central Kansas	17. Marshall
4. Chautauqua	18. Meade-Seward
5. Clay	19. Mitchell
6. Coffey	20. Norton-Decatur
7. Elk	21. Republic
8. Finney	22. Rice
9. Ford	23. Pratt
10. Franklin	24. Riley
11. Harper	25. Rush-Ness
12. Jewell	26. Smith
13. Kingman	27. Stafford
14. Lincoln	28. Woodson

DEATHS

1. Anderson	1	10. Leavenworth	2
2. Atchison	2	11. McPherson	1
3. Barton	1	12. Montgomery	3
4. Butler	1	13. Osborne	1
5. Cherokee	3	14. Reno	1
6. Cloud	2	15. Shawnee	3
7. Harvey	1	16. Wilson	1
8. Jackson	1		—
9. Johnson	1	Total	24

UNORGANIZED, BUT REPORTING

1. Greenwood	2	1 death in Ness County
2. Jefferson	1	after report was made.
(2 occurred)		Total, unorganized but
3. Osage	1	reporting, 6.

17 COUNTIES DO NOT REPORT

1. Brown	4. Miami
2. Doniphan	5. Nemaha
3. Marion	6. Washington

KNOWN DEAD IN

1. Cowley	1	8. Saline	2
2. Crawford	1	9. Sedgwick	4
3. Dickinson	1	10. Sumner	1
4. Douglas	2	11. Wyandotte	1
5. Labette	3		—
6. Neosho	2	Total	19
7. Pawnee	1		

UNORGANIZED, BUT DEATHS KNOWN TO OCCUR

1. Geary	1	2. Wabaunsee	3
Grand Total	51		

Twenty-eight counties report no deaths occurred during year. Sixteen counties report twenty-four deaths. Seventeen counties do not report, but nineteen deaths

are known to have occurred in them. Three unorganized counties report six deaths. Two unorganized counties do not report their two mortalities.

DELAYED REPORT FOR 1923

1. Willis Franklin Wilhoit, Wichita, died January 4, 1923, of chronic nephritis complicated by cardio-vascular disease. He was 64 years old, and graduated from the Indiana Medical College, 1883. He was a member of the County, State and American Medical Association.

2. John Starkweather, Ottawa, died February 19, 1923, of heart disease. He was 52 years old, and graduated from the Beaumont Hospital Medical College, St. Louis, Mo., 1900. He was formerly a member of the county and state societies. He had practiced sixteen years in Pomona, Kan.

1. Hugh Marshall Barnes, Colony, aged 46, died of nephritis at Rochester, Minn., August 30, 1923. He was graduated from the Kansas City Medical College, 1898, and practiced at his birthplace, Blue Mound, Kan., until entering the military service as a lieutenant in the World War in 1918. He was a member of the Anderson County Kansas State and American Medical Association.

2. James C. Bennett, Eskridge, aged 45, died at Topeka, January 5, 1924, from injuries received the previous day when a train struck his automobile. He was graduated from the Kansas Medical College, Topeka, 1904. Was a member of the Shawnee County, Kansas State and American Medical Association.

3. Giles Albert Blasdel, Hutchinson, aged 51, died July 3, 1923, at the Grandview Sanitarium, Kansas City, Kan., of pneumonia complicating maniac exhaustion. He was graduated from the Kansas City Medical College, 1898. He was past president of Anderson County Medical Society and vice president of the state society. At the time of his death he was president of Reno County Society and councilor for the Fifth district. He was a member of Reno County, Kansas State and American Medical Association.

4. David Edward Broderick, Wichita, aged 46, died November 14, 1923, following a long illness. He was graduated from Rush Medical College, Chicago, 1901, and had taken post-graduate work in England. He had practiced as a children's specialist in Kansas City, and during the World War served in the orthopedic department of the navy with the rank of lieutenant.

5. Patrick Burns, Perry, aged 77, died October 20, 1923, of senile myocarditis. He was graduated from the Medical Department University of Tennessee, Nashville, 1867. He was formerly mayor of Perry.

6. Hilton Caleb Burton, Inman, aged 59, died March 26, 1924, of cerebral hemorrhage. He was graduated from Barnes Medical College, St. Louis.

7. Luthur B. Bushong, Topeka, aged 53, died November 15, 1923, of cerebral hemorrhage. He was graduated from the University Medical College, Kansas City, Mo., 1897. He was a member of the Shawnee County, Kansas State and American Medical Association.

8. Charles Wesley Caton, Concordia, aged 58, died March 28, 1924, of nephritis. He was graduated from the Hospital College of Medicine of Central University, Louisville, Kentucky, 1898. Was on the staff of St. Joseph's Hospital, Concordia, and St. Anthony's Hospital, Hays. At the time of his death he was president of Cloud County Society and a Fellow of the American College of Surgeons.

9. Israel W. Cunkle, Madison, aged 77, died April 17, 1923. He was graduated from Rush Medical College, Chicago, 1869. Was retired and not a member of the society.

10. Albert Dawson, Topeka, aged 76, died February 27, 1924, of arterio-sclerosis. He was graduated from the St. Louis Eclectic Medical College, 1877, and came to Kansas the same year. He was a member of the American Medical Association.

11. John W. Denbro, Elk City, aged 87, died September 9, 1923, of paralysis. He was retired and not a member of the society.

12. Albert C. Dillon, Osborne, aged 79, died June 2, 1923, of arterio-sclerosis. He was a Civil War veteran, and had been county health officer. Was formerly a member of the county and state societies.

13. Robert Kantz Dodge, Fall River, aged 59, died August 27, 1923, of cerebral hemorrhage. He was graduated from the Medical Department of Washington University, St. Louis, 1887. Had been president of Wilson County Society. Was a member of the County, State and American Medical Association.

14. John Longley Fryer, Leavenworth, eye, ear, nose and throat specialist, died suddenly of heart disease January 16, 1924, aged 57. He was graduated from the Kansas City Medical College, 1890, and the Post-Graduate Hospital, New York. He

had been chief surgeon at the National Military Home and during the World War was stationed at Leavenworth with the rank of captain. At the time of his death he was oculist at the United States Penitentiary. He was a member of the county and State societies.

15. Edwin S. Haas, Claflin, aged 50, died at Great Bend, March 10, 1924, of accidental phenol poisoning. He was graduated from the University Medical College, Kansas City, Mo., 1900, with a post-graduate course at Cincinnati. He was a member of the Barton County, Kansas State and American Medical Association.

16. F. E. Hamilton, Parsons, aged 89, died September 25, 1923, of senility. He was a Civil War veteran.

(Continued Next Month)

SOCIETIES

STAFFORD COUNTY

Society met in St. John, Wednesday, June 11th, 3:00 p. m. Members present, F. W. Tretbar, T. W. Scott, Stafford; R. E. Stivison, Hudson; M. M. Hart, Macksville; C. S. Adams, J. T. Scott, St. John.

Dr. Adams read a paper on "Focal Infection" calling especial attention to foci in the abdominal cavity. The following resolution was adopted and ordered incorporated in the minutes:

With deep regret we learn of the sudden death of Dr. C. C. Klippel, of Hutchinson, Kan., and hereby express to his family and the Reno County Society our sincere sympathy. Every member of this society knew him personally and admired his sterling qualities, both as physician and citizen. He was ethical, kindly, generous, unusually endowed with native and acquired ability, an outstanding type of that fast passing class of practitioners who combined the skill of the surgeon with that of the general practitioner. In his death the profession suffers a distinct loss and the state and nation loses a valuable citizen.

J. J. TRETBAR, *President*,
J. T. SCOTT, *Secretary*,
M. M. HART,
R. E. STIVISON,

Committee.

Copies of the above were sent to the Reno County Society and the family of Dr. Klippel.

Drs. F. W. Tretbar, J. J. Tretbar and J. G. Tretbar invited the society to be their guests at the July meeting in Stafford at

which time their new offices will be ready for occupancy. These are ground floor offices centrally located and will be equipped for medical and dental practice after the most approved modern methods. A group of physicians will be associated together and occupy the entire building.

The July meeting will consist of an afternoon and evening session. The former being devoted to scientific papers by invited guests, the latter to a banquet at the Hotel Brinkman with the ladies of the doctors as guests of honor. A program of toasts and music will be features of the evening's entertainment.

J. T. SCOTT, *Secretary*.

SHAWNEE COUNTY MEDICAL SOCIETY

The Shawnee County Medical Society held its regular monthly meeting June 2.

Dr. Edwin M. Miller, of Chicago, presented a paper on "Nerve Injuries Associated With Fractures." This paper was profusely illustrated with lantern slides.

Dr. J. W. Kennedy, of Philadelphia, presented a paper on "Appendicitis," and also a paper on "Vaginal Hysterectomy." Both of Dr. Kennedy's papers were illustrated with lantern slides.

The following committee on arrangements for the state meeting in Topeka, in 1925, was appointed: O. P. Davis, Chairman, Milton B. Miller, Earle G. Brown, W. W. Reed, and A. D. Gray.

The society voted to adjourn until the regular meeting in September.

EARL G. BROWN, *Secretary*.

WILSON COUNTY SOCIETY

The Wilson County Medical Society met at Neodesha Monday evening, June 9th. After our usual supper, the meeting was called to order by the president. Those present were Drs. Wiley, Butin, Jacoby, Flack, Duncan, Young of Fredonia; Dr. Addington, of Altoona, and Drs. Moorehead, McGuire and Simth, Neodesha.

The housing of the poor in this county is done in very poor buildings and an effort is being made to have a suitable building erected. Our committee reported that a petition signed by 40 per cent of the voters of the county would be necessary before the matter could be voted on by the voters.

Dr. Wiley reported a confinement case he recently handled which had, a few days previous, been examined by three osteopaths and told the woman had a tumor and must be operated at once. This woman's urine was loaded with albumen, could just

count fingers, had headaches, but no convulsions. A general discussion of abnormal conditions found in pregnancy and puerperal eclampsia followed.

Dr. Addington told us of the value of copper sulphate in diphtheria, used of course, in addition to antitoxin. Also it does wonders in streptococcic sore throat, and in various forms of conjunctivitis. He also told us of the Moore method of treating Colles fracture and demonstrated the correct manner of applying dressing for fractured clavicle.

The society decided to have a picnic at Dunn Station in July, taking our "wimmin" folks. Dr. McGuire to make arrangements.

The secretary was instructed to obtain copies of the "Code of Ethics" of the A. M. A., for each of our members.

Dr. J. S. Jacoby asked for a transfer card as he is soon leaving for Oklahoma. Same was granted. A resolution was passed expressing our regrets over the move being made by the doctor.

A change will probably be made in our by-laws. Some members do not attend the society meetings, in fact have not been present for years. If a member misses more than three or four meetings, without a first class excuse, he will probably be dropped from our rolls. Or something to that effect. What say other societies? Won't secretaries please write me their opinion?

E. C. DUNCAN, *Secretary*.

—R—

DEATHS

Dr. Clemens Klippel, Hutchinson, aged 72, died June 12, 1924. He was graduated from Rush Medical College in 1885. He was one of Hutchinson's pioneer physicians and had practiced there about forty years. He was known throughout the state because of his service as an official of the State Medical Society. He was at one time president.

—R—

The Department of Commerce announces that birth rates for 1923 were lower than for 1922 in twenty-one of the twenty-seven states for which figures for the two years are shown in the following summary. The highest 1923 birth rate (34.8 per 1,000 population) is shown for cities of Wyoming and the lowest (15.6) is for rural districts of Montana.

Death rates for 1923 were slightly higher than for 1922 in twenty-five of the thirty-six states shown for both years. Three states, Connecticut, New York, and North

Carolina, have the same rates for 1923 as for 1922 and eight states, Colorado, Idaho, Montana, Nebraska, Oregon, South Carolina, Utah, and Washington, have lower rates in 1923. The highest 1923 death rate (20.3 per 1,000 population) is shown for cities of Mississippi and the lowest (6.5) for the rural districts of Idaho.

Infant mortality rates for 1923 are generally higher than those for 1922, as seventeen of the twenty-seven states show higher rates in 1923. The highest 1923 infant mortality rate (117) appears for cities of South Carolina and the lowest (51) for the rural districts of Utah and the cities of Washington. Infant mortality rates are shown for both years for forty-five cities of 100,000 population or more in 1920. For twenty-five of these cities the 1923 infant mortality rates are lower than those of the previous year. The highest 1923 rate (110) is for Richmond and the lowest (48) for Spokane.

—R—

That the human body, in a state of rest and in still air, can not endure indefinitely a temperature higher than 90 degrees F. with 100 per cent relative humidity, has been determined by Department of the Interior investigators at the Pittsburgh experiment station of the Bureau of Mines, co-operating with American Society of Heating and Ventilating Engineers. In the course of the tests, it was noted that the heavier and stouter men of the experiments, when subjected to uncomfortably hot temperatures, lost more weight than the lighter and thinner men, but as a rule could endure such temperatures for a longer period and complained less of the exhaustion which followed. Loss of weight in the subjects experimented with gradually increased with an increase in atmospheric temperature. Whenever the subject drank ice water he immediately gained in weight, and in all cases the subject, within twenty-four hours, usually regained the entire weight lost. Subjects who drank ice water freely after exposure to high temperatures felt no ill effects, tending to disprove the assumption that such action develops severe cramps.

—R—

The results of a ten-year demonstration of the home hospital plan of treating tuberculosis, under which the entire family is treated when a parent is afflicted, instead of sending the parent to a sanatorium and the children to an institution, are set forth in a pamphlet just issued by the New York

Association for Improving the Condition of the Poor, under the title "Tuberculosis, a Family Problem."

The report points out that when tuberculosis invades the home the usual recourse is to place the patient, either the father or the mother, in a sanatorium and to place the children in a preventorium, in a foster home or with friends or relatives. Separated from his family, the patient becomes worried and discouraged, a factor which alone retards his progress; or he is likely to leave the sanatorium before a complete recovery has been effected. Continuing, the report says, in part:

"If there ever was a disease in which the family and not merely the patient is the unit of treatment, that disease is tuberculosis. The Home Hospital is a demonstration of the results which can be secured by housing the tuberculous patient and his family in a wholesome environment, by supplying the family with sufficient relief to provide for an adequate standard of living, and by providing the necessary medical and nursing care not only to insure the recovery of the patient but to prevent tuberculosis from occurring among those members of the family who had not previously been afflicted.

"When the Home Hospital idea was first conceived the objection was made by some that without complete segregation of the tuberculous, many new cases would develop within the institution itself. In our ten years' experience no new cases of tuberculosis, either of children or adults, has developed while a family was in the institution. Judged by medical results the Home Hospital is quite as effective in arresting and improving tuberculous patients during residence as any sanatorium in the country. The fact that practically 60 per cent of the patients in spite of their tremendous handicap are able to assume full responsibility toward their families after discharge is abundant evidence of the lasting effect of Home Hospital treatment. Of those discharged as quiescent practically 50 per cent were found on the follow-up to be alive and gainfully employed."

—R—

Notes from the Medical School

There were one hundred and seventy-seven students registered in the Medical School during the past year. Of this number seventy-nine were in the freshman class.

Dr. V. M. Auchard, Dr. Walter Stephenson and Dr. R. W. Urie have finished their

year's internship in Bell Memorial Hospital. Dr. Auchard expects to locate at Lenora, Kan., Dr. Stephenson at Atwood, Kan., and Dr. Urie at Parsons, Kan.

Patients were formally transferred to the new Bell Memorial Hospital on June 26. All the accommodations were not completed, however, and it will be a month before the hospital is able to receive colored patients and conduct the out-patient department in the new dispensary building.

Dr. Paul F. Stookey has been appointed Health Director of Kansas City, Mo.

Dr. Joseph E. Welker of the class of 1921 has been appointed assistant in medicine. Dr. Welker recently completed a three years' service at the New Haven Hospital, New Haven, Conn.

Dr. Sam E. Roberts of the Department of Laryngology, is president of the Kansas City, Eye, Ear, Nose and Throat Society.

Dr. Richard L. Sutton, professor of dermatology, has been elected a life fellow of the Royal Geographical Society of Great Britain.

Dr. L. B. Gloyne (1918) is health commissioner of Kansas City. A recent issue of *Hygiea* contained an article by Dr. Gloyne on "Clean Workers Mean Clean Food."

One of the recent medical publications of the Mosby Company is "Modern Methods of Treatment," by Dr. Logan Clendening of the Department of Internal Medicine.

The University of Kansas had an exhibit at the Scientific Assembly of the American Medical Association in Chicago. One of the exhibits received a certificate of merit for the originality shown in the work and the method of presentation.

Dr. Paul M. Krall read a paper on "The Formes Frustes Thyroid" at the June meeting of the American Association for the Study of Goiter.

Dr. Russell L. Haden has been appointed Associate Editor of the Journal of Laboratory and Clinical Medicine.

At the recent commencement exercises there was a class of twenty-three graduated with the degree of M. D. Four of this year's graduates, Dr. Burleigh E. DeTar, Dr. Otto T. Blankey, Dr. George R. Lee and Dr. George E. Foreman have been appointed internes at the Bell Memorial Hospital.

Dr. L. F. Barney of the Department of Surgery, is president of the Kansas City Clinical Society.

Dr. Claude J. Hunt (1915) is secretary of the Jackson County Medical Society.

Dr. George Henry Thiele (1920) is practicing medicine in Butler, Missouri, and is an occasional visitor at the Medical School.

Dr. C. E. Earnest (1914) is secretary of the Clay County Medical Society.

Dr. Carter William Ward (1910) died recently at his home in Lenora, Kan.

A recent number of a British Medical Journal contained an editorial regarding some work done on Melanuria in the University of Kansas School of Medicine and one week later the London Lancet described in its editorial columns some of the work done in the University of Kansas School of Medicine on diabetes. Recent issues of *La Presse Medicale* and *Il Policlinico* reviewed in detail some of the scientific work published from the University of Kansas Medical School.

—B—

Cogitations

BY THE PRODIGAL

Can a doctor be honest and hold his job? Technically—no. Religiously and scientifically and humanely yes. A doctor like a layman may stand so straight that he leans back a little. Such is the technical physician.

The doctor believes his patient will die. His experience and reason hold out no hope for the patient's recovery to health. And at the same time he encourages the patient and his friends by the words of the old adage "so long as there is life there is hope." And to his utter surprise and astonishment the dying man gets well.

Did the doctor deceive, lie to, or wrong his patient in any way? No. The doctor simply banked on his own ignorance, being an intelligent man, and gave his patient the benefit of the doubt. He would have been dishonest if he had given an unfavorable prognosis and loaded the weakened patient's will with the extra burden of doubt.

The doctor knows he is finite. What he knows—is. The most of what he thinks he knows he knows is problematic. The doctor has been honest with himself in acknowledging his doubt by encouraging his patient. It is the motive that determines a wrong. A mercenary motive gets a doctor in bad. An altruistic motive gets him in right, on the home stretch.

The next patient died. The doctor's encouragement and favorable prognosis and treatment failed. He did his duty physically and mentally to his patient. He made

a mistaken prognosis. He believed until the last that his patient would live. Here again his motive saved him. He has a clear conscience and a clean bed fellow to sleep with. His peace of mind and self conscious discharge of duty satisfies this inner man and is reflected to others in his bearing and begets in them faith and confidence in the doctor's professional ability and motives. God, with a tear, has washed away the moral technical stain, and the doctor, smooth shaven, clean faced, bright eyed, with smiling countenance and conscience void of offence is listening to the plaudit, "Well done, good and faithful servant," and has cinched his job.

The symptoms of foot and mouth disease in man as given are, fever, vomiting, painful swallowing, sensation of heat and dryness of the mouth, followed by an eruption of vesicles on the lips, mouth and tongue. There may be headache, pain in the back, vertigo, colic, diarrhoea and weakness.

However, it is seldom that humans are infected. When they are the disease runs a mild course and spontaneous recovery takes place if the patient is let alone. The cause of the disease is unknown. It is reported that two German biologists have isolated the germ of foot and mouth disease but the report has not been confirmed. The disease is confined, mainly, to cloven footed animals and with them the mortality is low. The animal loses flesh from lack of nourishment, the mouth being so sore it will not eat, and not from failure of appetite. So far, May 9, 1924, California has lost well on to \$3,000,000 in cattle, hogs and property from foot and mouth disease. The disease, no doubt, is of germ origin. There is a cause going before every effect.

"Except," says Pat.

"Except what?"

"When a man is wheeling a barrow."

Hence the disease may be *de novo*?

Woman suffrage continues to evolve. Bobbed hair promises bald heads. Such practice in turn encourages long haired and bewiskered men. Or short haired women add long haired men. A reversion to the original and patriarchal type in man, and flapper women. When the evolution is completed, that is, when women don men's clothing, wear short hair, shave, smoke, chew tobacco, squirt tobacco juice, drink hooch and put on other frills, there will be no place for man. He will not be recognized as such, unless he lets nature alone in his makeup and not be needed.

Doctor, when you want a
Reliable aid to digestion

Specify Elixir of Enzymes, a palatable combination of ferments that act in acid medium.

Also one of the best vehicles for iodides, bromides, salicylates and other disturbers.

Elixir of Enzymes is dependable in disorders easily controlled if taken in time, but serious when neglected.

Pituitary Liquid
 is the premier preparation
 of the Posterior
 Pituitary.

Standardized
 1 c. c. ampoules Surgical
 1/2-c. c. ampoules
 Obstetrical



Suprarenalin Solution
 1:1000

Astringent, hemostatic
 and heart stimulant

Splendid keeping qualities
 1 oz. g. s. bottles

ARMOUR AND COMPANY
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Very truly yours,

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Business Manager

Office 910 Rialto Bldg., Kansas City, Mo.

Cryogenine—(*Phenylsemicarbazide*)—is an antipyretic and analgesic. It is claimed that it does not affect digestion and that it has scarcely any effect on the circulation and respiration. Cryogenine is claimed to be useful as an antipyretic in febrile conditions. As an analgesic, it is said to be of value in rheumatism, headache, sciatica, gout and in painful conditions generally. It is marketed in the form of powder and 0.5 Gm. tablets.

BOOKS

The Surgical Clinics of North America (issued serially, one number every other month. Volume IV, No. 1, Philadelphia Number, February, 1924), 302 pages with 90 illustrations. Per clinic year (February, 1924, to December, 1924). Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London; W. B. Saunders Company.

The February number of the Surgical Clinics presents a considerable variety of subjects. Of special interest are the articles from the Bronchoscopic Clinic which bring out the importance of the bronchoscope in diagnosis and treatment. In this series Pancoast has a very excellently illustrated article on x-ray diagnosis of the esophagus. Deaver's article of surgical diagnosis should be read carefully. Muller's article on surgery in diabetes is interesting and instructive. Acute intestinal obstruction is discussed. Behrend Piper gives some points in the treatment of puerperal septicemia. Fay discusses the problems of cerebrospinal pressure. There are numerous other articles of equal importance that should be read.

Management of Diabetes, Treatment by Dietary Regulation and the Use of Insulin, a manual for physicians and nurses based on the course of instruction given at the Presbyterian Hospital, New York, by George A. Harrop, Jr., M.D., Associate in Medicine, College of Physicians and Surgeons, Columbia University, and Assisting Visiting Surgeon, Presbyterian Hospital, N. Y. Published by Paul B. Hoeber, Inc., New York City. Price, \$1.00.

The author attempts to classify all the problems that the practitioner may find in the dietetic treatment of diabetes in connection with the administration of insulin. The food tables are of particular value. Each food is set down as to its content of fat, carbohydrate and protein in five and ten gram multiples up to one hundred grams together with the weight or size of the average serving.

The Circulatory Disturbances of the Extremities, Including Gangrene, Vasomotor and Trophic Disorders, by Leo Buerger, M.A., M.D., New York City. Octavo volume of 628 pages with 188 illustrations. Philadelphia and London; W. B. Saunders Company, 1924. Cloth, \$8.50 net.

Because of the difficulties in the diagnosis of the circulatory, vasomotor and trophic disturbances of the extremities and the con-

fusion in clinical classifications the author has prepared this text. He describes the minute structure of the vessels, the vasomotor nervous system, the physiology of the peripheral circulation before taking up the pathologic manifestations. The illustrations are particularly instructive.

The Science and Art of Anesthesia by Colonel William Webster, M.D., Professor of Anesthesiology, University of Manitoba Medical School, etc. illustrated. Published by C. V. Mosby Co., St. Louis, Mo. Price, \$4.75.

The author first gives us a fairly complete history of anesthesia and then describes its physiology. The various anesthetics, their action, peculiarities, methods of administration and dangers are fully discussed. There is a chapter on the selection of the anesthetic to be used.

The Surgical Clinics of North America. (Issued serially, one number every other month). Volume IV, No. 11, (Mayo Clinic Number, April, 1924)—295 pages with 88 illustrations. Per clinic year (February, 1924, to December, 1924). Paper, \$12.00; cloth, \$16.00, net. Philadelphia and London. W. B. Saunders Company.

Various causes of obstruction of the esophagus and cardia are considered and illustrated with clinical cases by Vinson. Balfour has in this number a very well illustrated article on various types of gastric reaction. Mann considers some of the functions of the liver. Foulds, Scholl and Braasch discuss the histology and mortality in renal tumors. One of the very timely articles in this number is presented by Desjardins and Smith on radio-dermatitis and its treatment. This number contains many very practical articles about conditions commonly met with, and a good many descriptions of rare and unusual cases.

Differential Diagnosis. Presented through an Analysis of 317 cases. By Richard C. Cabot, M.D. Professor of Medicine and Professor of Social Ethics at Harvard University, Volume 2, third edition, revised. Octavo of 709 pages, 254 illustrations. Philadelphia and London. W. B. Saunders Company, 1924. Cloth, \$9.00, net.

Cabot's plan for presenting the differential diagnosis of diseases by the analysis of illustrative cases has met with unusual favor by the profession. The third edition of volume II, which has recently been published has been revised. The introductory discussions have been modified and enlarged. The cases remain unchanged.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totalling 8,000 pages, with 1,500 illustrations, and separate index volume free. Now ready—Volume III, containing 1,051 pages with 223 illustrations. Philadelphia and London. W. B. Saunders Company, 1924. Cloth. \$10.00 per volume. Sold by subscription.

THE JOURNAL

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No. 8

Fractures of the Humerus

WM. C. CAMPBELL, M.D., MEMPHIS, TENN.

Read before the Annual Meeting of the Kansas Medical Society at Wichita, May 7 and 8, 1924.

Fractures of the humerus are of unusual interest on account of the impossibility to completely immobilize by any form of apparatus. It has been contended that slight motion between fragments is conducive to union, but the fact that delayed and non-union occurs more frequently in the shaft of the humerus, than any other long bone, is sufficient evidence to refute such contention without further consideration.

An analysis of 314 fractures of the humerus compiled from private records, for the past five years, form the basis of this discussion. Of this number 131 were in the lower extremity, 36 in the head of the humerus and 147 in the shaft. Fractures of the head of the humerus, involving the shoulder joint and of the lower extremity in proximity to the elbow joint, will not be further mentioned as each location is a clinical entity worthy of special consideration as a separate subject.

Of the 147 fractures of the shaft of the humerus, 73 occurred in the upper third, 36 in the middle third and 38 in the lower third. No fracture can be intelligently considered without due regard to anatomy, especially the relation of the muscle to the point of fracture. In the upper third the powerful pectoral muscles displace the distal fragment forward and inward. In the middle third the deltoid displaces the proximal fragment outward. In the lower third the distal fragment passes forward from the force of the gravity through the weight of the dependent forearm, as there are no muscular insertions in this region. The brachialis anticus and triceps completely cover the bone, their action being neutralized by the flexed position of the elbow. The weak supinator longus and extensor carpi radialis longior have no definite influence. The musculo spiral nerve is regarded as an important factor on account of the close relation to the bone, but with the exception of compound fractures from without, such as gun shot wounds, the dan-

ger of permanent injury is probably overrated. However, Von Burns compiled 77 injuries of the musculo-spiral nerve, but does not state how many were seriously impaired. In 147, under consideration, about 25 gave evidence of injury to the musculo-spiral nerve, but in only one, the result of gun shot wound, was there permanent loss of function. Above the elbow the shaft of the bone is well padded with fat and muscles, allowing ample space for callous expansion without undue pressure on the nerve trunk. In the lower third the brachial artery may rarely be injured by the distal fragment.

The type of fracture may be spiral, oblique, transverse and comminuted. In the upper third the transverse predominates, in the lower third about fifty per cent, while in the middle third a transverse fracture is extremely rare, though more often in children than in adults. The long spiral occurs more frequently in the middle and upper third, rarely in the lower third. Comminution is more frequent in the middle and lower third, with separation of a loose fragment, or there may be a loose segment of bone which might be classed as two separate oblique fractures. These loose particles have been described as due to the action of the deltoid muscle, but as this type occurs as often below the insertion of this muscle, and when in the region of the insertion there is often no displacement, the cause is in all probability torsion force, besides the prototype of this fracture occurs in the lower third of the femur which cannot be credited to muscular action. Typical relations of fragments occur from unusual forces or extensive tissue destruction in any location.

Of the 147 fractures of the shaft of the humerus, 20 were compound, 11 were due to gun shot wounds and 9 to ordinary violence. Of the 11 gun shot wounds, 5 were in the upper third, 5 in the lower third and 1 in the middle third. Of the 9 from violence, 6 were in the lower third, 2 in the upper third and 1 in the middle third. As is evident compound fractures are by far more frequent in the lower third and quite

rare in the middle third. From ordinary violence the skin is penetrated when the lower fragment passes forward by gravity of the dependent forearm, which may also sever the brachial artery, as occurred in two instances. In only one of the 20 compound fractures was there a permanent injury to the musculo-spiral nerve, and in this case from gun shot wound. In one there was gas infection. There was incident staphylococcus infection in a majority of cases, which subsided with efficient drainage and Carrel-Dakin's treatment.

There were 17 ununited fractures, 4 of which were compound and 13 simple fractures; 9 were in the upper third, 5 in the middle third and 3 in the lower third. As it is manifestly more difficult to immobilize the upper third, on account of change in body position, standing, sitting, reclining and the respiratory movements of the thorax, mobility is evidently an important causative agent in non-union. All 17 were first observed after they had reached the state of permanent pseudo-arthritis. In fact in a series of approximately 2,000 fractures observed by myself, and my colleagues, not one non-union occurred except in the neck of the femur in the aged, and then in only 10 per cent, which we believe to be largely the result of complete fixation after satisfactory reduction.

The principle in the treatment of fractures of the humerus does not differ from that of other long bones, except that the problem of fixation is more difficult. The methods in general use are inadequate or inefficient and responsible for the general admission that pseudo-arthritis is more frequent than in any other long bone. There are two methods by which approximation of fragments may be retained, first, by engagement of fragments with end to end approximation by the means of external forces and is only applicable to transverse fractures, or in irregular fragments when a dove-tailing or inter-locking is possible; second, by constant fixed traction, which may be accomplished by forcible traction on a fracture table, with the application of apparatus, as plaster cast to maintain reduction, or by continued traction with apparatus.

In transverse fractures reduction can seldom be accomplished by traction, but without difficulty by angulation until there is end to end approximation, with engagement of fragments when the bone is brought into perfect anatomical alignment. It is not always possible to obtain 100 per

cent approximation, but 50 per cent is sufficient to restore perfect function, which is all that could be desired. After reduction, retentive apparatus, as will be described below, or a plaster of paris cast is applied, if the latter it should extend from the palm of the hand including the entire body to the crest of the ilium. The elbow is always flexed from 90 to 120 degrees to relax the muscles which pass from the arm to the forearm.

In oblique or spiral fractures it may be necessary to disentangle fragments from soft parts to secure approximation, after which sufficient traction and rotation is made until there is desired approximation, when retentive cast or apparatus is applied.

If there is a tendency to angulate, or a displacement of loose fragments, special felt pads may be employed with pressure to maintain anatomical alignment.

Under no circumstances should the elbow be placed in extension, especially in fractures of the lower third, as this position throws the lower fragment forward in dangerous proximity to the brachial artery, which may be occluded with resultant gangrene. If the deltoid is antagonistic the shoulder is adducted, if the pectorals, the humerus should be rotated inward.

During the war we saw reports of marvelous reductions of fractures by the balkan frame, which apparently promised to revolutionize previous methods, but these fractures were free from muscular action by destruction of the soft parts, which differ materially from those encountered in civilian practice.

The object of our efforts has been to secure approximation and to employ apparatus which could be adjusted within a few days, so that the patient might return to his home for convalescence without the necessity of constant attention. It might be possible, by complicated apparatus and hospitalization until union is firm, to secure better anatomical relations but surely no better functional results. Any procedure to be universally employed must be within financial reach of the average individual.

In a majority of cases we have employed a simple traction splint, which is a modification of a principle advocated by M. S. Henderson. The apparatus consists of a large metal plate to conform to the lateral aspect of the thorax, which is united to the arm piece in the axilla, the width of which conforms to the size of the arm and

passes down the inner aspect to the elbow, and thence down the palmar aspect of the forearm and hand, with the elbow at right angles and the forearm in mid position. An inner metal bar is attached to the inner surface of the arm portion to three or four inches below the elbow and is then bent outward to right angles, for the attachment of the traction straps. Adhesive straps are applied to the arm from the point of fracture to well below the elbow, after which the splint is adjusted and held in position by adhesive plastered and webbing straps. After sufficient traction the adhesive straps are attached to the steel bar. Traction can be daily increased if necessary to secure reduction. When union is sufficient to retain the fragments the steel bar may be removed and the remainder of the splint worn, which permits the wearing of a dress or coat. This apparatus is well adapted to fractures of the upper and middle third, and as a convalescent measure in the lower third—in the lower third the distal fragment is often too short for sufficient traction.

Open reduction is seldom necessary in simple fractures. In only 6 transverse fractures in the upper third has an incision been made, when it was thought approximation in the upper third has an incision been made, when it was thought approximation could not be secured and maintained. The fragments were reduced and held in situ by chromic cat gut or silver wire, after which a cast or traction splint was applied. With our present knowledge it is doubtful that it would have been necessary to have operated in even this small number, in fact, it is very rare that reduction can not be secured by external means, if earnest and intelligent efforts are applied.

In all fractures apparatus should be removed for inspection before consolidation is complete, by which deformity can be easily corrected. As soon as union is well advanced the splint should be removed for daily gentle massage, active and passive motion of joints, but with care to avoid strain at the point of fracture. The elbow can be released, allowing active and passive motion by the patient at certain intervals during the day.

When a fracture reaches the stage of permanent pseudo-arthritis there should be no temporizing. Efficient operative measures alone are indicated. No foreign substance, such as steel or beef bone, should be employed for such materials repel bone

production, as is evident in the roentgenograms, which show greater callus on the opposite side of the bone, with often no callus about the internal fixation apparatus. The autogenous bone graft alone is worthy of consideration as a means of internal fixation, for it is not only well tolerated but promotes osteogenesis, which is always deficient.

Complete fixation of an ununited fracture by the autogenous graft is often attended with difficulty and requires painstaking care, in consequence, there are many failures from apparent inability to apply efficient mechanical principles, as evidenced in the roentgenograms of a number which have been observed. The grafts are often too short, at times a mere splinter or peg. A large graft may be loosely attached and not conforming to the contour of the bone, the graft may be placed under stress. The vitality of all grafted tissues is below normal and should not be placed under any condition which would impair its vitality. No one would think of placing a skin or facial graft under stress, but this seems to be frequently demanded of bone, which always dissolves at the point of strain, as has been observed in fixation operations on the spine, when a straight bone graft is made to conform to a convex kyphotic spinal column.

In our present state of development a bone graft operation is without standardization and most indefinite. When a hysterectomy or an appendectomy has been performed it is well known what has been accomplished, but a bone graft may be a mere caricature of an efficient procedure.

There are two prime factors to which we must closely adhere in ununited fractures; first, the promotion of osteogenesis, and second, complete internal fixation. The former is met by several well known procedures, but it has been impossible, by any of the methods in general use, to restore a solid firm continuity without at least feeble movement at the point of fracture, which it is thought might cause failure in a small per cent. With this in view the following procedure was evolved (a preliminary report of which was published in the American Journal of Surgery, January, 1923):

Ample incision is made through the skin in order to expose each fragment, when possible, for four inches, routine dissection is made to the seat of fracture, all intervening scar and fibrous tissue is removed, the fragments are pared with chisel or motor saw

and each medulla is reamed out until healthy marrow tissue is reached. The fragments are rotated until normal relation has been restored. An incision is made through the periosteum of each fragment, for several inches, depending on length and anatomical location. The periosteum is stripped from one-half to three-fourths of an inch from the circumference leaving attached, as much as possible, the soft parts from which circulation is derived. With a chisel "shavings" are removed from the circumference until there is a continuous flat surface, for three or four inches, when possible, on each fragment. A broad flat massive graft is taken from the tibia, which should be of sufficient length, breadth and dimensions, to secure firm fixation. With a motor saw the graft is split longitudinally through the edge or small diameter into two parts, a strong outer plate consisting of dense bone or cortex, and an inner, the endosteum. A strip of endostum is placed within the medulla, bridging the seat of fracture as reduction is made, thus restoring normal marrow tissue rich in osteoblasts. From the outer plate, or as a separate graft, a strip of dense bone is taken, from which six or eight autogenous bone nails are made, of appropriate size. The strong outer plate is held to the flat surface of the bone, passing across the seat of fracture. Three or four drill holes are made through the graft and each fragment, into which the autogenous bone nails are driven. A square peg in a round hole secures firm attachment. In addition chromic cat gut sutures are passed about the bone and graft. The remainder of the endosteum is broken into small particles and placed with the "shavings" about the seat of fracture. If the graft is taken from the upper extremity of the tibia, it is often possible to obtain small pieces of spongy bone which are possibly more active in reproduction than dense bone.

With a limited number of femora and humeri a different technique has been used, which consists of cutting a long slot in each fragment, of about one-fourth inch in diameter, into which the dense outer portion of the massive graft is inserted across the line of fracture. After drilling about eight holes, bone nails are driven through the shaft of bone and graft. By these measures stabilization has been so complete that no motion between fragments can be detected—nevertheless external fixation is always applied.

In order to carry out this tedious proce-

dure a team of trained associates is essential, as well as the most rigid instrumental technique. It is not a one man operation. One surgeon, with two associates, prepares the fracture, while the second and one assistant remove the graft and prepare the nails, otherwise too much time would be consumed.

External fixation remains for eight weeks; further observation might materially shorten this period. For six months some form of light brace, commensurate with joint function, is worn as experience has shown that all bone grafts require protection over a long period of time.

This method has been employed in 12 of the 17 ununited fractures of the humerus, with solid bony union and restoration of function in all cases. In other portions of the skeletal system the results have been highly satisfactory. In consequence conclude that the percentage of failures in operations for non-union in fractures has been materially reduced as compared with former methods.

—R—

The Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax.

CHAS. O. GIESE, M.D., Colorado Springs, Colorado.

Read before the Annual Meeting of the Kansas Medical Society at Wichita, May 7 and 8, 1924.

The treatment of pulmonary tuberculosis by artificial or induced pneumothorax has now been employed a sufficient length of time, and in a sufficient number of cases to enable us to draw definite conclusions as to its merit. The literature bearing on this question is voluminous, and I shall attempt no bibliography. I will, however, attempt a brief summary of my own experience extending now over a period of some 13 years, and will attempt to discuss very briefly a few of the questions that arose when this treatment was first instituted, and have continued to arise since that time. Many of these questions could not be answered excepting by prolonged and careful observation. It is needless to say that to consider in detail any of the several points to be enumerated would necessitate a much longer discussion and consume more time than would be justified at a meeting of this nature. I must of necessity, therefore, summarize each point very briefly.

The general mortality from tuberculosis has decreased steadily and rather rapidly during the past 20 years. In the registration area of the United States the mortality in 1900 was 195.2 per 100,000, and in 1921

this had declined to 94.2. On the other hand it is my impression that the mortality from manifest tuberculosis has not appreciably decreased. Therefore, any line of treatment that has to do in most cases with rather far advanced and progressive cases of tuberculosis, and offers any solution of this difficult problem is worthy of our consideration. As a possible index to the mortality from manifest tuberculosis it is interesting to note that of 6,000 cases admitted to the Modern Woodmen of America Sanatorium in Colorado Springs between December 17, 1908, and January 14, 1924, there were, excluding 671 cases considered non-tuberculosis, remaining 5,329 with a definite diagnosis of tuberculosis. Of these 4,168 had positive sputum and in 1,161 the sputum findings were negative for tubercle bacilli, although the history, physical signs and x-ray findings were sufficient to warrant a diagnosis of pulmonary tuberculosis. Of the 4,168 positive sputum cases 64.2% were dead on April 1, 1924, and of the 1,161 negative sputum cases 17.1% were dead on the same date. Cases dying of causes other than tuberculosis were excluded. In other words, 54.2% of all cases diagnosed as tuberculosis entering the institution between the dates above mentioned were dead of tuberculosis on April 1, 1924. This institution has now been in active operation slightly more than 16 years, and it seems to me altogether probable that on any date in the future it will be true that more than 50% of the patients previously admitted and diagnosed as tuberculous will have already died. With our present methods of treatment it seems to me quite unlikely that this per cent will change very materially. I mention these well established facts to show the high mortality from manifest tuberculosis even when patients have been under high-class sanatorium management for a protracted period. The decrease in the general mortality appears to be attributable to the decrease in the number of cases, not to the improvement in treatment after the disease has become well established.

To take up then the questions that presented themselves, and still present themselves for consideration when artificial pneumothorax as a therapeutic measure is contemplated.

TYPE OF CASE SUITABLE FOR THIS FORM OF TREATMENT

The type of case suitable for treatment by artificial pneumothorax is the fairly extensive, largely unilateral case, that under

the best conditions available where rest and hygienic and dietetic measures can be carried out has not made satisfactory improvement in a reasonable length of time. Lesions of slight extent that give rise to severe and uncontrollable hemorrhage often are favorable cases for compression without delay. This is also true of the rapidly progressive pulmonary case.

LOCATION OF PUNCTURE

The most desirable point is in the inferior scapular line in the 7th or 8th interspace, the patient lying on the unaffected, or less affected, side; the arm on the side to be compressed drawn well forward and upward. It is very desirable that the patient be in an entirely comfortable position, since after the instillation of air, particularly the first or second treatment, it is desirable that they remain in the same position for some time after the treatment has been completed, the pain being much less if this simple procedure is carried out. If unsuccessful at the point just mentioned various other areas may be attempted, provided care is taken not to wound the heart or large vessels, which may of course be considerably displaced. A percussion note approaching normal and a good respiratory murmur as determined by auscultation—if these can be elicited often times give valuable aid in denoting a favorable point for puncture. We have had no punctures at the extreme apex.

KIND OF GAS TO BE USED

There appears to be no advantage in oxygen, nitrogen or other gasses over well sterilized atmospheric air.

TYPE OF MACHINE, NEEDLE AND TECHNIQUE OF PUNCTURE

The essentials of the pneumothorax apparatus are two bottles, with sufficient antiseptic fluid to fill one of them, either bottle to be elevated easily above the other to secure gravity flow of the fluid, a 3 way cock, curved glass tube to act as water manometer, adequate cotton filters, rubber tubing for the conduction of fluid and air, needles of various size and length and a small hypodermic syringe. In my experience there is no advantage in the specially constructed needles. The skin is infiltrated, preferably with a small hypodermic needle, the deeper structures and parietal pleura with a 20 gauge needle of 2 in. length, reserving the 15 gauge needle for the introduction of gas. 1 per cent or 2 per cent sterile novocain either in ampoules or in sterile vaccine bottles serves every purpose as a local anesthetic. Some operators pre-

fer to work without anesthesia, and this may often be done quite easily when the patient has been under treatment for a considerable length of time. It is not to be recommended in the beginning, and personally I prefer to use a local anesthesia at each treatment. Artificial pneumothorax must be given frequently over long periods and should be given as nearly painlessly as possible. No gas should be allowed to enter until a definite negative pressure is secured with definite oscillation in the manometer corresponding with respiration, an increase in negative pressure associated with inspiration. A manometric reading both above and below zero,—2-2 for example, generally indicates that the needle is in lung tissue. In such an instance it is some times advisable to reverse the pneumothorax apparatus and withdraw a small amount of air. This is a much safer procedure than the introduction of air, providing such a reading is secured.

AMOUNT OF GAS TO BE GIVEN AND FREQUENCY OF TREATMENT.

Unless rapid collapse is demanded on account of hemorrhage, 200 to 300 c.c. should be the initial amount. Three treatments should be given during the first week, amount varying from 200 to 500 c.c. in uncomplicated cases, depending on the apparent freedom of the pleura from adhesions, amount of pain, etc. After the third treatment it is usually advisable to give a treatment at one week intervals until the optimum amount of collapse has been secured. By optimum amount of collapse we mean the point at which the patient seems best both clinically and symptomatically. If in a unilateral case we are fortunate in securing entire cessation of sputum with marked improvement in pulse and temperature, there is no need to further continue the collapse. Frequently x-ray examinations and fluoroscopic examinations are desirable and helpful when these can be secured. Occasionally after the introduction of a few hundred c.c. and the production of a known pneumothorax, the puncture if made at the exact site of previous punctures elicits no free space. An x-ray check of these cases will ordinarily indicate the point at which puncture should now be made. After the optimum collapse has been secured further refills both as to amount and intervals must be determined by a study of the individual patient. Cases under treatment for a long period may be allowed to go one month or even more between refills. Many will require refills at intervals of two weeks, even after several months of treatment.

PRESSURE TO BE USED.

As stated before, at the time of the first puncture a definite negative pressure with oscillation in the manometer should always be secured. If a negative pressure does not persist after the introduction of 200 to 300 c.c. of air, and particularly if a negative pressure is secured at first, very rapidly changes to a definite positive one, is maintained for some minutes and causes no discomfort to the patient, it is very probable that a slight collapse will be secured, at least at this point, since the needle is evidently in a small pocket surrounded by dense adhesions. After the optimum collapse has been secured, and particularly if the lung is well collapsed from all sides, a pressure as high as 8 to 10 cm. of water may be used to advantage. Often such high pressures are not needed.

DIAGNOSIS AND TREATMENT OF PLEURAL EXUDATES.

Fluid forms in the pleural cavity of the compressed side in approximately 90 per cent of the cases. Many operators have reported as high as 100 per cent with careful checking by fluoroscope and x-ray. The formation of this fluid is usually accompanied by a sharp rise in temperature and a general feeling of soreness throughout the compressed side. Dullness soon appears at the base, which shifts readily with a change in position of the patient, and succussion is easily elicited. X-ray shows the characteristic fluid level, and under the fluoroscope definite movement of the fluid can easily be elicited. In ordinary cases the fluid is straw colored, has a specific gravity of 1.015 or more, and tubercle bacilli are easily demonstrated. If fluid persists for a considerable period it usually becomes turbid and occasionally frankly purulent, even though there is no demonstrable bronchial fistula. In my experience it is advisable to frequently aspirate these fluids and replace with air. Neglecting to do this often results in loss of the compression previously obtained.

TREATMENT OF LUNG RUPTURE.

Rupture of the lung into the pleural cavity of the compressed side, with resulting infection from the bronchial tree, is the most serious and unfortunate accident in the treatment of pulmonary tuberculosis by artificial pneumothorax, with of course the exception of sudden death, which unfortunately occasionally occurs. Empyema usually rapidly follows, with signs of marked sepsis. If under repeated aspirations the bronchial fistula fails to close, which can easily be demonstrated either by a change

in the position of the patient, preferably before aspiration, which if the bronchial fistula persists, results in the expectoration of large amounts of pus or fluid, or by the taking of a reading by the pneumothorax apparatus preferably after aspiration.. If aspiration fails we are forced oft times to decide upon either of two courses. Either attempt to drain the patient persistently through the bronchial fistula, which is generally not successful, or to institute open drainage either by puncture with a trochar and introduction of catheter drain, or by rib resection, with the probable assurance that in practically all cases where open drainage is instituted, drainage will continue throughout the life of the patient unless successful plastic surgery is carried out. Postpone open drainage as long as possible even in the presence of frankly purulent fluid. Aspirate frequently taking great care not to allow the purulent fluid to enter the chest wall, as this frequently gives rise to the formation of a tubercle in the chest wall, with resulting spontaneous rupture. It is remarkable how frequent aspirations will relieve sepsis and encourage the closing of the bronchial fistula. Cases in which the bronchial fistula does close are almost universally better treated by aspiration with the introduction of various antiseptic fluids. Formerly we employed the 2 per cent formalin and glycerin. Recently 2 per cent mercurochrome in 50 per cent alcohol appears to give very satisfactory results, although as yet our experience with this drug is too limited to endorse its use.

LENGTH OF TIME TREATMENT SHOULD BE CONTINUED.

If artificial pneumothorax treatment is successful, and as frequently occurs the patient is changed from a febrile, progressive, rather hopeless case to one that is symptom free and with a fair amount of working ability, there is but little difficulty in securing continued co-operation. It is often more difficult to convince a patient that they need no further treatment than it was to institute the treatment. In cases where the results are less favorable the situation naturally is somewhat changed. In determining the time of discontinuance of treatment it is advisable if possible to know the condition of the lung before compression, to study the symptoms before and after refills are made, and of course the condition of the uncompressed lung. There is as yet no absolutely definite time beyond which treatment should be discontinued.

Each case is an individual problem. Many are still doing well after six or eight years of continued treatment. We have noticed on at least two occasions that discontinuance of artificial pneumothorax after protracted use has led to the formation of fluid, with rise in temperature and general malaise. This rapidly disappears after gas is again introduced.

EXPANDED CASES.

Cases that expand even in the presence of continued refills, or are allowed to expand intentionally, may or may not show evidences of healing, either from the clinical history or from a study of the x-ray plates. In general, however, after complete symptomatic relief has once been secured, and if the infection does not extend to the uncompressed lung, a careful attention to details and prolonged observation and continuance of the pneumothorax treatment should give satisfactory results.

The ultimate results obtained by artificial pneumothorax have established it as a procedure of great value in the treatment of certain types of cases. It is by no means the treatment to be instituted in all cases that have failed to improve under the best conditions available, with hygienic and dietetic treatment and enforced rest, but it should be considered in all such cases. It is the most marked recent advance in the treatment of pulmonary tuberculosis, particularly applicable to a certain per cent of far advanced cases, otherwise hopelessly ill.

—R—

Head Pain of Nasal Origin

H. L. SCALES, M.D., HUTCHINSON

Read before the Annual Meeting of the Kansas Medical Society at Wichita, May 7 and 8, 1924.

This subject is such a large one and covers such a wide field that it would be impractical to attempt to cover it thoroughly before an audience of this sort; however, I will endeavor to discuss the matter in a way that will be of interest to the non-specialist as well as to the specialist.

We will confine our discussion to the pain caused by infection of the sinuses, as this is, by far, the one most commonly met with. This subject should appeal very greatly to everyone, as every physician comes in contact with these cases, especially during the winter months.

There are four pairs of nasal sinuses, of which one pair, the ethmoids, consists of a number of separate cells. The posterior ethmoid is sometimes as large, or larger, than the sphenoid and lays in close contact with it. I have a dry specimen, of which

I will show a slide, in which the posterior ethmoid cell on one side is larger than the sphenoid and so overlaps it that it would be almost impossible to get into the sphenoid without going through the ethmoid. In fact, if such a case as this had been operated on, the operator would have considered that he had opened the sphenoid sinus when, instead of being in the sphenoid, he would have been in the large overlapping ethmoid. The others are single cells, the maxillary being the largest. The maxillary sinuses and the sphenoid sinuses are not well situated, anatomically, to provide proper drainage while in the upright position, the natural openings in the maxillary being in the upper portion and the sphenoid probably in the upper two-thirds. This is probably a defect in evolution from the type of the earlier man who walked with his head at an angle of about 45 degrees instead of 90 degrees, as it is now carried. In this position both the maxillary and the sphenoid would drain in a natural way. The frontal sinuses are drained by a rather long, tortuous canal and, while the gravity drainage in the frontals is very good, yet, the openings are very easily closed by any swelling of the mucous membranes that may take place. Both the maxillary and the frontal sinuses open under the middle turbinate, the maxillary above the juncture of the middle and anterior third and the frontal in the extreme anterior portion.

The inflammatory conditions that take place may be classified into acute and chronic. The acute cases are, by far, the most common and are very plentiful during the winter months. The acute cases cause a great deal more severe pain than the chronic cases but, of course, the pain is not of such long duration. The sinuses most commonly affected with inflammatory conditions are the maxillary, the frontal, the ethmoid, then the sphenoid. The symptoms of sinus infection that cause the patient to complain are: pain, toxic manifestation and discharge.

PAIN.

Pain is, by far, the most common symptom and is found sometime or other in practically all cases of sinus infection, whether they be chronic or acute. Occasionally a case is found that does not have pain but this sort of case usually has a large nose which prevents any pressure symptoms and also gives free drainage. The toxic manifestations are probably the most serious of

all symptoms and are also the most difficult to determine.

The toxic headaches are usually found in chronic cases, although they are also found in the acute cases. Toxic headaches run a fairly regular course. The patient with a chronic sinus trouble who has a toxic headache is very apt to waken in the morning with a headache which wears off during the earlier part of the day. This is in contradistinction to the headaches found in the acute cases which come on during the middle of the day, last for a few hours, then leave. We do not mean to say that the pain in all acute sinus cases is of this type, yet, it is rather typical.

Pain, which is one of the most prominent symptoms of sinus disease, is of two origins, from pressure and from toxemia. I am of the opinion that pressure pain is much more commonly found in sinus disease than toxic pain. Pain, due to pressure, is very well demonstrated in the acute cases by shrinking the mucous membranes and emptying the sinus, when the pain will usually be very much lessened, if not entirely relieved. These infections are usually found in abnormal noses in which the anterior upper portion is very narrow and a slight amount of swelling in the middle turbinate or in the mucous membranes, adjacent to it, blocks the nares and causes pressure against the septum and outer wall, producing intense pain. This pain is almost immediately relieved by shrinking the mucous membranes.

Sluder describes a low grade headache produced by inflammatory changes in this region which he calls a "vacuum headache," caused by closure of the frontal sinus, without nasal symptoms or signs and without visible obstruction or discharge. Due to this closure the air in the sinus is partly absorbed and the negative pressure makes the walls sensitive. His principal diagnostic point is the so-called "Ewing's Sign," tenderness at the attachment of the pulley of the superior oblique. These patients have ocular symptoms only, being unable to use their eyes for near work without pain. I must say that I do not fully agree with Sluder as to the cause of this pain, as I have found that careful refraction and the fitting of proper lenses will entirely relieve the vast majority of patients with the syndrome he describes.

The location of pain is sometimes a great aid in determining the particular sinus which is infected, but it may be very confusing and too much stress should not be

laid on the location of the pain. I will, a little later on, describe in detail two cases which demonstrate the confusion which may arise, should one depend on the location of the pain as diagnostic. Pain in frontal sinus infection is usually found immediately over the frontal sinus, extending off into the temporal region, but the pain may be in any portion of the head. In infection of the maxillary sinus there is usually a very definite pain located in the cheek. Sometimes the patient complains that his teeth are sore and that his face feels heavy. The pain from ethmoid infection is probably the most indefinite of all. I am not sure that I have at any time been able, definitely, to locate a pain due to ethmoid infection. Infections in the sphenoid are very apt to give pain in the back of the neck, radiating down the shoulder on the same side as the infection. This pain sometimes extends into the arm but, on the other hand, I have had one case of sphenoid infection that gave the identical pain cycle that is so frequently found in infections of the frontal sinus, this pain coming on at some definite hour of the day, usually about 10 to 11 a. m., lasting from 1 to 3 hours and then leaving. This pain was formerly thought to be of malarial origin, due to its periodicity and was called a "sun pain." It is possible that some of these pains may be due to malaria but I am sure that, in my section of the country, where malaria is practically unknown, these are all due to sinus infection.

The two following cases will demonstrate rather graphically how confusing location of pain may be when considered as a diagnostic feature.

(Case 1.)—Mrs. W., age 58 years, developed a severe pain in the left frontal region. This pain would seem to start in the temple and would radiate and become most severe immediately over the frontal region. The pain would begin about 10 or 11 o'clock in the morning, last for two or three hours, and then disappear. The pain in this case was very intense and had all the features of the so-called "sun pain." It seemed very evident to me that this was purely a frontal case. X-rays were taken of the frontals, maxillary and sphenoid sinuses. The frontals and maxillary showed entirely clear and it was thought by myself and the Roentgenologist that the x-ray was also negative as regards the sphenoid. The upper portion of this nose was almost entirely occluded by a large middle turbinate. After the pain had con-

tinued for some time, it was decided to take out the middle turbinate in its entirety, open the ethmoids and, if necessary, open the sphenoid. Upon operation, the ethmoids were found to be perfectly normal but puss was seen coming from the sphenoidal opening. This was enlarged, the sinus washed out, and in a very short time the pain entirely ceased.

(Case 4.)—Miss W., had been suffering with a slight cold for several weeks when she developed a rather severe pharyngitis, affecting, principally, the posterior pillars and extending up into the post-nasal space. Following this she developed an intense pain in the back of her head, extending forward as far as the posterior temporal region. She had a very narrow nose, the middle turbinate almost entirely blocking the upper portion. There was no indication of puss and it was considered that she had either a posterior ethmoid or sphenoid infection. After three days of pain, x-rays were made which showed the ethmoids and sphenoid clear but a very marked darkening in the maxillary region on the side of the pain. It was decided to see what could be accomplished with suction before washing out the antrum. In this case suction worked successfully and the patient was soon quite comfortable and on her way to recovery.

It is a little difficult, without careful study of the nerve supply, to understand how a sinusitis in the ethmoid region could cause a typical frontal sinus pain and, also, why the maxillary sinusitis should cause the type of pain that is most often found in ethmoid disease. These, of course, are reflex sympathetic pains and the nervous impulse travels in rather a round-about way to reach the point affected. By observing the slide, we will be able to see very easily how this is accomplished. The nerve supply of all this region originates in the Gasserian ganglion. Branches are given off which supply the superior maxillary and the frontal region. Another branch comes out of the sphenopalatine fissure and forms Meckels ganglion. The vidian branch from this ganglion supplies the region around the posterior ethmoid and the sphenoid. In the case of sphenoid infection, the nerve impulse would travel up the vidian to Meckels ganglion, from there to the Gasserian ganglion and then forward through the branch supplying the frontal region where the pain was localized. In the other case, of the maxillary sinus, the route of travel would be reversed, first going from

the maxillary branch to the Gasserian, thence to Meckels and through the vidian into the back of the head and neck. I can easily understand the route of travel of these reflex pains but just why they should do this is beyond comprehension.

DIAGNOSIS.

The diagnosis is sometimes remarkably easy to make and again it may be one of the most difficult conditions to be sure of with which I have had any experience. It has seemed to me that you either know after you have asked the patient a question or two that they have a sinus infection or, this not being the case, you may spend days without fully making up your mind about the condition, there being practically no middle ground. I should place the diagnostic signs in importance as follows: Pain, discharge, x-ray, trans-illumination, toxic manifestations and inspection. I place pain as the most important diagnostic sign because it is almost always found in a greater or lesser degree.

As has been said before, practically every case of sinus infection has, at some time or other, considerable pain. The cases that do not have pain usually have some discharge so that the value of pain and discharge, as diagnostic features, I would place at about 75 per cent.

X-ray is of great value as an aid to diagnosis but should not be relied upon to the exclusion of other features. I am sure that for a long, long time after an infection of the mucous membrane of the sinuses there is some thickening which, in a great many cases, will show in the x-ray. I am sure that the more we see of x-rays of sinuses the more value we will derive from them because of the greater skill in interpretation.

During the past winter I had three cases of sphenoid infection, in the first two of which I decided the x-rays were entirely negative. Both of these were operated and pus was found in the sphenoid sinus. The third case came in shortly after in which there was great doubt as to whether there was infection in the sinus or not. It was carefully compared with the x-rays of the two previous cases when it was decided that the first two, when properly read, very definitely showed infection. The first case, had it been properly read, would have saved considerable pain and suffering on the part of the patient. I would classify the x-ray as a very valuable aid in diagnosis. Owing to the kindness of Dr. E. C. Carhart we have been able to take very

many more x-rays than it would have been possible to make had the patient been required to pay for all of the films.

Next to the x-rays, I think I would place trans-illumination and, yet, I am not sure that I have ever been able to get any benefit from trans-illumination except in the maxillary sinus and, occasionally, in the frontal. It is of no benefit in the sphenoid and of very doubtful benefit in the ethmoid cases. It seems to me that the cases in which the sinuses show dark with trans-illumination are always the ones in which there is no question as to what is the difficulty. I have found one case in which the maxillary sinus was entirely clear on trans-illumination and also by x-ray, but which was found, on irrigation, to be entirely filled with pus.

Inspection of the nose, I consider a very valuable aid to diagnosis, even though there may be no discharge. In my experience, practically all sinus cases have more or less swelling and congestion in the anterior third of the middle turbinate. In the acute cases this is so great that drainage from the maxillaries and frontals is entirely obstructed. In the chronic cases the anterior end of the middle turbinate is very frequently much redder than the posterior two-thirds and is sometimes clubbed and much wider in this portion than in the posterior part. This is due to the irritation from secretion, however slight, coming from the natural openings of the frontal and maxillary. The portion of the nose in which secretion is found has a bearing on the sinus that is infected. The maxillary sinus opens about the juncture of the middle and anterior third of the middle turbinate, the frontal sinus opening under the extreme anterior portion of the middle turbinate. The anterior ethmoids also open in this region. Naturally, secretion found coming from under the anterior end of the middle turbinate must be coming from either the frontal, maxillary or ethmoids. It is sometimes a little difficult to determine from the secretion, which one of these it is coming from. Secretion in the posterior portion of the nose and in the naso-pharynx may come from any one of the sinuses but, if seen coming directly from the posterior portion, it is fairly certain that it is coming either from the sphenoid or posterior ethmoid cell. I am not sure that I have been able to differentiate secretion coming from the ethmoids from the other sinuses, except in the cases of old ethmoid infection in which

there is formation of numerous polypi. In this case diagnosis is easily made at first inspection.

There is one diagnostic feature which is very infrequent but, when found, I consider absolutely diagnostic. This is odor. There is occasionally a very peculiar odor which, once smelled, will never be forgotten. I do not refer to the frightful odor that is sometimes found in maxillary sinus infection of dental origin but a very peculiar odor that, to me, gives the impression of the odor that one gets from salted peanuts. But, if you have a good nose, your nose will know the odor when you smell it.

Treatment depends largely upon whether or not the case is of an acute or chronic nature. While all treatment, in one sense, is probably surgical, yet it may be divided into operative and palliative. Very few of the acute cases require operative measures. For the past two years I have been using suction in the acute cases and occasionally in the chronic cases and have never found anything that gave my patients the relief that I have obtained from shrinking the mucous membrane and then using suction. Suction acts very beautifully in most cases with trouble in the maxillary and in the frontal sinuses. I have had some cases where it seemed utterly impossible to get any benefit from suction. Especially was this the case in infections of the maxillary sinus. I have had a few cases with infection of the maxillary sinus in which, even though the sinus was completely filled with secretion, suction was of no avail. Fortunately, with the daily shrinking of mucous membrane with adrenalin or cocaine, followed by 1 per cent silver, these cases were relieved without becoming chronic. It is certainly a pleasure to have a patient come in with an acute sinus infection, with such frightful pain in the head that he tells us he feels sure he is going to go crazy, when, upon shrinking and the use of suction, his pain is entirely relieved. Of course, this relief is not permanent and treatment must be continued until nature relieves the case. The chronic cases are very much more difficult to cure. In fact, I am not sure that any chronic case is ever entirely cured. We may feel that they are cured but if we keep in touch with the patient, in a year or two he is apt to come back with a recurrence of the sinus trouble.

It is probable that the mucous membrane of any sinus that has ever become even acutely infected never becomes entirely normal again and, of course, is always more

subject to infection than normal mucous membrane. Not every case of chronic sinus infection is benefited by operative measures and one must use his judgment as to what cases will be benefited. I am firmly convinced that the less we destroy of the turbinates and mucous membrane of the nose the better off we are. I doubt if a maxillary sinus into which a large opening has been made under the lower turbinate is ever in good condition again. I try, in every case, to leave all of the middle turbinate that I possibly can as, by doing this, we are not nearly so apt to have scabbing and dryness later on. I have found in quite a percentage of cases of ethmoid infection in which there were numerous polypi that, by working under the middle turbinate, the ethmoid cells could, in many cases, be thoroughly cleaned by using a cutting forceps and curette and, in this way, a very useful middle turbinate would be left in place. It is very often necessary to remove the anterior end of the middle turbinate to assist in giving drainage to the frontal and maxillary sinuses. In some cases the natural opening in the frontal sinus must be enlarged. This can be done in any way that the operator has found to be easiest for himself. Personally, I usually use a rasp. One great difficulty that I have found is in keeping the openings from closing. I must say that my efforts, in relieving the secretion in chronic cases of frontal sinus infection, have not been very good. No matter how free an opening I have made the secretion has usually continued. However, if the drainage is free enough the secretion will become so light that it is not disagreeable to the patient and the chance for toxic infection is practically eliminated. Infection in the sphenoid is probably the most difficult to diagnose and I am of the opinion that it is the most difficult of all to operate. In these cases the whole of the middle turbinate must be removed and enough of the anterior wall of the sinus removed to give drainage. I have seen a few cases of sphenoid infection that, even though the drainage was good, the inflammatory condition in the mucous membrane was so great as to cause considerable pain. One patient, especially, suffered intense pain in the face immediately over the region of the maxillary sinus. She had had all sorts of operative measures, had nothing left in her nose except a large cavity. This case is at present under treatment and has been given more relief by injection of 1 per cent mer-

curochrome into the sinus than by all the other measures she has had. The pain in this case, I am sure, is due to the irritation of some of the branches of the fifth nerve, due to the inflammatory process in the sinus.

CONCLUSIONS.

Every head pain is not of nasal origin but we are all of us failing to diagnose many cases that are of nasal origin.

Do not be in too great a hurry to operate on acute sinus cases as the greater part of them will recover under conservative treatment.

Head pain, due to pressure, is more apt to be localized than is the pain due to toxemia.

In chronic head pains, without nasal symptoms, the x-ray is our most dependable diagnostic feature.

Finally, let us use all the means at our command to relieve the patient who suffers from chronic head pain, for I know from personal experience that he needs help.

—————R—————

Trichinosis

C. N. JOHNSON, M.D., WICHITA

Read Before the Sedgwick County Medical Society,
October 19, 1922.

Trichinosis is an acute condition caused by the *trichinella spiralis* and characterized by remittent fever, edema of face, pain and soreness in muscles and emaciation and anatomically the larval worm is found in the muscles.

ETIOLOGY

a. Morphology. The adult worm lives in the upper part of the intestine of man, swine, rat, dogs and cats. The embryo pass by means of lymph vessels and blood streams to the various striated muscles and the encysted larvae live in the muscle. The adult worms which live in the intestines are white in color. The male worms being about one and four-tenths to one and six-tenths m.m. (1-8 to 1-16 inch) long by 40 microns (1-650 inch) in diameter. The female worms are 2 to 3 1-2 m.m. (1-12 to 1-7 inch) long by 60 microns that is (1-416 inch). The vulva is in the anterior 1-5 of the body and the worm is viviparous.

b. Evolution. When trichinous meat is eaten the cyst wall is digested in the stomach. The worms are liberated and pass actively into the small intestine where they grow to maturity in two or three days. The females are fertilized by the end of the third day the egg being twenty microns (1-1250 inch) in diameter and containing

an embryo which escapes from the egg in the cavity of the uterus. On the 6th or 7th day the fertilized female burrows with the anterior end into the mucosa of the intestines so at least the anterior 1-5 of the worm is in the tissue and the embryos escaping from the vulva will be in the tissues. The female continues to give birth to embryos for about six weeks but most of the embryos are passed in the first two weeks. The embryo when born is 90 to 100 microns (1-280 to 1-250 inch) long by 6 microns (1-4000 inch) in diameter. The embryos after being discharged into the tissues migrate through the lymph channels, thence into the blood streams, or as some claim, directly into the veins then to be lodged in the striated muscles. The embryos are found in fair numbers in the muscles as early as the 9th or 10th day. The muscles most commonly involved are the diaphragm, intercostals, and abdominal muscles, the muscles of the neck, head and face. The embryos are first lodged between the fibres but later penetrate into the fibres. The muscles react by the changes characteristic of acute myositis. The embryos attain the mature larval form within the muscle fibre reaching complete development about the 15th day and becoming as much as 1 m.m. (1-25 inch) in length. Then they coil up and become encysted one only usually in each cyst but occasionally two or more in one cyst. Encystment begins about one month after infection. The cyst wall is distinct by the end of the sixth week and complete at the end of the eighth or tenth week. The encysted embryos are differentiated into male and female and may live 20 or 30 years in these cysts. When meat containing these cysts is eaten, the worms are liberated and the cycle is started over again.

c. Resistance of larvae. The encysted larvae resist salt and other antiseptics on account of the impermeability of the cyst wall. However, heating will kill the larvae. Perroncito states that the encysted trichinae larvae are killed in 5 to 10 minutes at a temperature of 118 to 122 F. Ransom states that the larvae are quickly killed at a temperature of 127 to 131 F. Other observers while agreeing that heat will destroy the larvae, maintain that much higher temperatures are necessary to kill the larvae. The low temperature of the storage plants of our packing houses seem to be sufficient to destroy the vitality of the larvae to such an extent that infection seldom fol-

lows the eating of meat that has been in cold storage for some time.

d. Sources and frequency of *Trichinae*. The infection in man occurs as a result of eating pork which has not been sufficiently cooked. Hogs are infected by eating other animals which have been infected such as rats, trichinous pork, or human or porcine excrement containing the embryos of propagating intestinal trichinae. About 2 per cent of the swine are trichinous, the infection being rather common among swine the world over. Rats are a common source of infection. Swine, dogs, or cats may become infected from eating infected rats. Horses and cattle are seldom infected. The lower animals are the normal host for trichinae, infection in man being in the nature of an accident.

Symptoms may be absent or so slight as to not be diagnosed except accidentally at autopsy. The stage of intestinal infection begins soon after eating trichinous pork. The symptoms of this stage consist of nausea, vomiting, anorexia, abdominal pain, distention, and diarrhea. The bowel movements may contain much blood and mucus. The general symptoms may be slight or patient may develop remittent fever and delirium. In severe cases the patient may die within two or three days after eating trichinous pork. The stage of invasion begins at the end of the first week and corresponds with the migration of the embryos out of the intestines. Fever is usual, sometimes with chilly sensations or occasionally with a chill, may reach 102, 104 or even 106 and is remittent or intermittent in type. Febrile urine and quickened pulse are usual. Bronchitis is a constant symptom. Severe cases show symptoms suggesting typhoid such as delirium, dry tongue, epistaxis, status typhosus, diazo reaction, albuminuria. Acute diffuse myositis is the pathognomonic symptom of trichinosis, the intensity of which varies from mild, simulating "muscular rheumatism," to the most characteristic involvements with pain, tenderness, swelling, semi-flexion of the arms and legs to relieve muscular tension. The involved muscles have a characteristic hard brawny induration with edema of the overlying skin and subcutaneous tissues. This edema over the affected muscles is especially noticeable if the patient is not obese. The edema of the eyelids and frontal regions is one of the early and characteristic signs. Involvement of the eye muscles causes movement of the eye balls to be painful. Involvement of the pharyn-

geal muscles causes pain on swallowing; involvement of masseters causes deglutition to be painful; involvements of the diaphragm and intercostal muscles cause dyspnea. The blood shows a very characteristic picture. First a leucocytosis of 15,000 to 30,000 and second an eosinophilia which is greatest at the time the trichinae enter the muscles. The eosinophiles which normally constitute $\frac{1}{2}$ per cent to 2 per cent of the leucocytes rise to 15 per cent or 30 per cent, or even 50 per cent to 68 per cent in trichinosis. Eosinophilia is a symptom of other parasitic diseases but trichinosis is the only disease causing such a pronounced rise in number of eosinophiles. Profuse sweating, paresthesia, urticaria, and anemia are constant symptoms.

The state of encystment begins by the end of the 4th week and by the end of the 6th week enough embryos have become encysted so that the symptoms begin to lessen. After the fever leaves profound weakness and prostration, anemia of more or less severity, and marked emaciation are prominent features of the disease. The muscular weakness persists for months and the muscles may be painful and tender for a year or more.

LABORATORY FINDINGS

a. Embryos can be found in the blood in a large percentage of cases. The method of procedure is to put 5 or 10 c.c. of blood into 100 c.c. of 3 per cent acetic acid solution, centrifuge, and examine sediment for embryos.

b. Embryos may be found in the cerebro-spinal fluid in a large percentage of cases. The procedure is to centrifuge a specimen of the cerebro-spinal fluid and examine sediment for embryo.

c. Examination of small portion of affected muscle. A small piece of the muscle is teased out in glycerin and examined under microscope.

d. Eosinophilia from 15 to 30 per cent or even up to 68 per cent and a leucocytosis of 15 to 30 thousand.

DIAGNOSIS

1. Gastro-intestinal symptoms, nausea, vomiting, diarrhea, followed by severe pain, tenderness, edema, swelling of muscles, fever, delirium, and other constitutional symptoms.

2. Edema of face and swelling about eyes and frontal regions in the absence of positive urinary findings.

3. Leucocytosis and marked eosinophilia.

4. Microscopical examination of small

portion of muscle, preferably a small piece of gastrocnemius. Of course proof that infected meat has been eaten or the presence of an epidemic will help to establish the diagnosis.

DIFFERENTIAL DIAGNOSIS

1. Acute articular rheumatism affects primarily the joints with pain and swelling with little tenderness in the muscles. Swelling of the face does not accompany acute articular rheumatism unless there is some kidney involvement as a complication.

2. Acute nephritis may be simulated by swelling of the face and other edema and by scanty febrile urine. Close observation will show that the edema of trichinosis is not general but is only over the affected group of muscles and is not limited to the skin but that the underlying muscles are brawny, indurated, and painful to touch. Of course careful urinalysis will eliminate the diagnosis of nephritis.

3. Typhoid, pneumonia, and febrile diseases can be eliminated by the course of the disease.

Prognosis should be guarded for several weeks. The mortality varies with the epidemic but the average German mortality is about 6 per cent. Some epidemics show mortality as high as 70 to 100 per cent. Packard collected 357 cases with a mortality of 24 per cent.

TREATMENT

1. Prophylaxis is very important. Federal meat inspectors are able to detect some of the infected meat but the important thing is the thorough cooking of pork.

2. Actual treatment consists of.

a. Thorough purgation to remove as many of the intestinal trichinae as possible before they have time to produce embryos.

b. Administration of the various anthelmintics, such as male fern, santonin, or thymol, to kill the trichinae already in the intestines.

c. Intravenous administration of salvarsan or neo-salvarsan repeated at intervals of four to six days.

d. Symptomatic treatment of incidental symptoms as they arrive. Hot baths, aspirin, morphine hypodermically for pain, strychnine hypodermically for weak, rapid pulse, and tonics during convalescence.

Case No. 1—Mrs. M. C. V., married, white, age 22, housewife. Admitted to St. Francis hospital April 2, 1922.

First symptoms began two weeks before admission after she had eaten some pork sausage. Began with pain in stomach and abdomen, nausea, and loss of appetite. Ten

days after onset she developed severe headache and pain in eye balls, eyeballs seeming too large for orbits. Has neuralgia and pain all over body. Patient first noticed swelling about face and eyes two days before admission to hospital. Was first called to see patient on April 1, 1922, at her home at which time I found the patient with face badly swollen, much edema about the eyelids, and complaining of severe headache, and pain and tenderness all over the body. Examination showed swelling and induration of various groups of muscles over body with edema of overlying cutaneous tissues. Temperature 102, pulse 120. Patient more or less delirious and complaining of severe pain all over. Patient's personal history was entirely negative except that she had an attack of nephritis when she was 12 years old, edema being present for about three months. A tentative diagnosis of an acute exacerbation of old chronic nephritis was made and patient taken to hospital. After admission to hospital, catheterized specimen of urine was obtained which was entirely negative, thus eliminating the diagnosis of acute nephritis. A blood examination was then made which showed a red count of four and a half million, hemoglobin 80 per cent color index 1 minus, white blood count fifteen thousand with a eosinophilia of 50 per cent. The rest of the differential count showed nothing unusual.

On April 3rd spinal puncture was made and an unsuccessful search was made for parasites. Unsuccessful search was also made for parasites in the blood. Wassermann on blood was negative. Temperature of patient on admission was 103, pulse 116, temperature gradually reaching normal on the fourth day but rising again to 102 on the same day and gradually receding to normal on the tenth day after admission. The general physical examination on admission showed nothing of interest except the edema of the face and marked muscular soreness and induration especially in the muscles of the arms and the trapezius. Patient was unable to extend arm on account of the indurated condition of the biceps. Induration was also present in the forearms but there was not any swelling or tenderness in regions of the joints. By the 4th of April the pains had moved down into the pectoral and intercostal muscles causing such severe pain that it was necessary to administer morphine hypodermically. During the next few days, the muscles of the limbs were similarly involved. On the 5th, 8th, 12th, neo-salvarsan was administered

intravenously with prompt improvement after first dose. Other treatment consisted of santonin and calomel followed by salines. Other treatment was symptomatic. Patient was able to leave hospital by the 14th of April at which time she was apparently normal except blood still showed eosinophilia of 20 per cent with considerable muscular soreness and weakness.

Case No. 2—Mr. N. C. V., husband of case No. 1, age 22, salesman. Family and personal history negative.

Present illness began at the time wife was taken sick soon after eating park sausage about the 14th or 15th of March. Began with abdominal discomfort but no nausea or vomiting, loss of appetite and general malaise. No further symptoms were noticed until March 29th, then he had chilly sensation, severe headache, general aching, muscular pains, swelling of face, especially in the region of masseter muscles. This patient was first seen on April 1st. Temperature 100, some swelling of face and indurated groups of muscles noticed in arms, forearms, and thighs. Patient did not seem acutely sick but accompanied wife to hospital where we had an opportunity for laboratory examination. At no time was he bedfast. Examination showed urine negative, Wassermann negative in blood. Blood examination showed red count eighteen thousand, eosinophilia 60 per cent. Unsuccessful search for paracites was made in blood and spinal fluid. On April 5th an incision was made under local anaesthesia over gastrocnemius muscle and piece removed for microscopical examination. Several larvae were found in the piece of muscle removed. Neosalvarsan was administered intravenously on the 5th and 8th with rapid improvement of all symptoms. Other treatment consisted of calomel and santonin followed by salines. Further observation of these cases showed continued improvement although convalescence was somewhat slow. Patients last seen on May 15th at which time the only symptoms of note were an eosinophilia of 18 to 20 per cent in both patients, some muscular weakness, and soreness and tenderness in muscles.

These patients, in a letter received early in September, 1922, still complain of muscular weakness and some tenderness in muscles.

—R—

Cancer is cured by swabbing it with liquid oxygen (?)

BELL MEMORIAL HOSPITAL CLINIC

Clinic of Dr. Logan Clendening

THYROID DISEASE

We have gathered here a group of patients presenting various phases of thyroid disease. They have all been here before and in the last few weeks you have had an opportunity of examining them quite carefully, one at a time, in one of the smaller rooms. You have gone over the history, examined the eyes, the tonsils, the thyroid gland, the muscular system for tremor, the pulse, the blood pressure, the heart, lungs, etc. In many of them you have read the basal metabolic rate. In one or two we have tried the pharmacologic reactions of thyroid hypersecretory conditions such as the Goetsch adrenalin reaction and the glucose tolerance tests. You have even been able to follow one or two when placed under treatment especially with iodine.

They have been assembled this morning in order that we may review the data we have accumulated and summarize very briefly some of the main tenets of our beliefs about thyroid disease.

Let us review the findings in each patient briefly.

Patient I. Female, aged 19. Complained of headache, menstrual irregularity and some enlargement of the neck. There is a small soft goiter. The pulse is 96. We found the heart, lungs, abdomen, reflexes, tonsils, teeth, eyes and muscular system normal. The blood pressure was systolic 134, diastolic 89. Her weight is 119.5 pounds, height five feet three and one-half inches.

Her basal metabolic readings were 239 cc. of oxygen consumed per minute, a rate of 12 plus, which can be considered within normal limits.

We gave her, you remember, a saturated solution of Sodium Iodide to take 5 drops three times a day.

Patient II.—M. J. K. Female, age 28. Consulted us on account of a prominent thyroid of six years' duration which is hard, nodular and fibrous, with a distinct cystic enlargement of the isthmus. Her pulse is 96. She has a considerable tremor of the fingers. The eyes are not prominent. She has suffered no loss of weight. Her menses have been scanty. The Wassermann reaction is negative. The urine showed a trace of albumin, and some hyaline casts.

The basal metabolic rate was read at 19 plus.

We decided that this was an adenoma with thyrotoxicosis.

Patient III.—J. K. Female, aged 19. There is one very interesting feature about this patient. Her brother was under my care at the City Hospital last year with exophthalmic goiter and glycosuria. He disregarded dietary restrictions, insisted on leaving the hospital and returned in three weeks in a coma which closely resembled diabetic coma and died two hours after entrance to the hospital. He was admitted at midnight and no blood sugar reading was made upon him. At autopsy no change was found in the islets of Langerhans but the thyroid showed the unmistakable histologic appearance of exophthalmic goiter.

This girl is a vivid example of that disease. The staring eyes, the diffuse marked thyroid enlargement, the vascular perturbation, which can be seen in the carotid arteries, the evident inability to control the muscular system from tremor, make a picture that is as unmistakable as it is painful to witness.

She presents so many signs that the mere enumeration of them would take more time than we can give in this period. You will remember that a few weeks ago we spent nearly an hour demonstrating her eye signs alone. She has von Graefe's, Stellwag's, Moebius' signs and many more.

When we injected a small amount of adrenalin in the skin her tremor and tachycardia became so intense that she put her head down on the table and fainted away and we were glad we did not carry out the full requirements of the Goetsch test and give her the eight minims which it demands.

We also had some trouble in making a satisfactory basal metabolic reading on account of her excitability and irregularity in breathing. The reading we got was 82 plus.

Patient IV.—A. W. Female, aged 41. She complains of thyroid enlargement existing for two years. She is very nervous, and has a choking sensation which is worse at night. The thyroid swells at her menstrual period. She has headaches. She has gained 13 pounds in three months. Intermittently she has hot flashes. She sweats a great deal. Frequently has fluttering of the heart. Her ankles have been swollen for six weeks or more. She is short of breath on exertion. Nocturia 2.

The thyroid is enlarged. There is no exophthalmos or tremor. The pulse is 104

and very irregular. The temperature is 99.6.

The basal metabolic rate is 39 plus. Obviously we are dealing with a cardiac failure induce by hyperthyroidism.

Patient V.—N. J. P. Female, aged 48. She has a very large hard thyroid. The pulse is 68. There is no tremor or exophthalmos. She is overweight.

She is presented as an example of colloid goiter without thyroid dysfunction.

Patient VI.—E. P. W. Female, aged 37. Has had a small colloid goiter for several years. Lately she has been gaining weight. She answers questions slowly. There is a peculiar crinkly parchment like appearance to the skin at the hair roots. Her tongue seems enlarged and her speech is thick. She is slow in answering questions. The skin on her hands is excessively dry and coarse. She has many other signs.

The basal metabolic rate is minus 31.

We have gone over her in detail before. She is a case of myxoedema.

To summarize the things we have observed in these cases we have in the first three cases three distinct phases of thyroid activity. Whether they are three separate entities entitled to classification as such, or whether they are different stages of a process we cannot say certainly. It is evident that enlargement of the thyroid can be accompanied by no symptoms, or by any combination of rapid pulse, tremor, prominence of the eyes, nervousness, loss of weight, menstrual disturbances, sense of heat, diarrhoea, high blood pressure, sensitiveness to adrenalin and lymphocytosis. On the contrary, we may frequently assume when these symptoms are present that hypersecretion of the thyroid is responsible for them even when no hypertrophy of the gland exists.

The basal metabolic rate or amount of oxygen consumed per square meter of body surface we have found to be a most reliable method of determining the activity of the gland. Its especial value is that its measurements are quantitative and thus furnish an index of improvement under treatment or a guide to the lack of value of treatment. The easily used apparatuses such as the Sanborn Handy Metabolism apparatus have filled the need of the clinical practitioner for an easily applied method of making these determinations.

Finally we have observed the occurrence of heart failure from the influence of the perverted secretion of the thyroid gland on the myocardium.

In the last patient the picture of hyposecretion of the thyroid is evident.

Literature—In pursuing our study of the thyroid, I have referred you to a number of articles in the literature easily available in the school library and have asked you to look them up. Let me summarize that list here:

I. *On the Pathology of the Thyroid*—

Ives—The Pathology of the Thyroid. Jour. Mo. State Med. Assn. Feb., 1921. Vol. XVIII. No. 2.

Prevention of Goitre—

Kimball—Prevention of Simple Goitre in Man. Am. J. Med. Sci. Vol. CLXIII. No. 5. May, 1922.

McClendon & Williams—Simple Goitre as a Result of Iodine Deficiency. Jour. A. M. A. Vol. 80. No. 9. March 3, 1923.

The Classification and Diagnosis of Goitre—

Barker—The Diagnosis of Exophthalmic Goitre. Jour. A. M. A. Vol. XLIX. No. 15, 1907.

Claiborne—Ocular Symptoms in Exophthalmic Goitre. Jour. A. M. A. Vol. 75. No. 13, 1920.

Wilson—The Relationship of the Clinical and Pathological Aspects of Exophthalmic Goitre. Northwest Medicine, Jan., 1913.

Plummer—The Interrelationship of the Functions of the Thyroid Gland. Jour. A. M. A. Vol. 77. No. 4, 1921.

Kessel and Hyman—The Clinical Manifestations of Disturbances of the Involuntary Nervous System. Am. J. Med. Sci. Vol. 165. No. 4, April, 1923.

Plummer—Relation of the Symptomatology and Pathology to Operative Mortality in Exophthalmic Goitre. Jour. A. M. A., June 29, 1911.

Goodpasture—Myocardial Necrosis in Hyperthyroidism. Jour. A. M. A. Vol. 76. No. 23, June 4, 1921.

Kessel, Lieb and Hyman—A Study of Fifty Consecutive Cases of Exophthalmic Goitre. Arch. Int. Med. 31-433, March, 1923.

III. *Basal Metabolic Readings*—

Symposium on Basal Metabolism. Jour. A. M. A. Vol. 77. No. 4, July 23, 1924.

Lusk—Fundamental ideas regarding Basal Metabolism.

Boothby—Basal Metabolic Rate in Hyperthyroidism.

Means—Clinical Calorimetry.

DuBois—The Basal Metabolism in Fever.

IV. *Treatment of Exophthalmic Goitre*—

Hyman and Kessel—Spontaneous Course

of Exophthalmic Goitre. Arch. Surg. 8-149. Jan., 1924.

Jagic and Spengler—Action of Iodine in Goitres. Wiener Klin Wochenschrift 37-105-130, Jan. 31, 1924.

Means and Holmes—Further observation on the Roentgen Ray Treatment of Toxic Goitre. Arch. Int. Med. 31-303. March, 1923.

Summary—After all this observation and collateral reading if we were to be asked to sum up our knowledge of the thyroid gland in the briefest possible terms, omitting all controversial questions and putting down only those things which are certain we would say.

1. That the thyroid gland is composed of epithelial cells which pour out a secretion into the blood, necessary for proper functioning of the whole organism.

2. This secretion is an iodine containing substance, identical or nearly identical with the substance known as thyroxin.

3. An adequate supply of iodine in food or drinking water is absolutely necessary for the secretion of this substance without undue demand on the gland.

4. In districts where enlargement of the thyroid is common, a deficiency in the iodine content of the drinking water is always present.

5. Simple goitre seems to be an attempt on the part of the gland to increase the number of acinar-lining epithelial cells in order to catch every particle of iodine circulating in the blood. At times it seems to result from a disturbed interrelationship between other ductless glands, notably the ovaries.

6. Other forms of hypersecretion of the gland cannot be explained upon data which we now have. It is probable that the condition known as exophthalmic goitre is caused by a perverted as well as an increased secretion of the thyroid. The condition has never been experimentally produced in animals or man by excessive thyroid feeding alone.

7. The function of the thyroid secretion is to regulate and control the total bodily metabolism and heat production and to exercise a hormone like action on other endocrine glands, particularly the ovary. By action on the islets of Langerhans and the adrenals there results some influence on intermediate carbohydrate metabolism and through the ovaries changes in the secondary sexual characters such as skin and hair and the mentality are observable in thyroid deficiency.

8. Simple goitre can be prevented by feeding children in goitrous districts 2 gm of sodium iodide each Spring and Autumn for three years.

9. The spontaneous course of a thyroid hypersecretory disease such as exophthalmic goitre is towards recovery within five years in 80% of cases. Deaths occur mostly from cardiac failure, which results from fragmentation and parenchymatous degeneration of the myocardial fibers.

10.—The treatment of exophthalmic goitre—Rest, time and hyperalimentation are the most important elements. The internal use of iodine in the form of Lugol's solution is our best drug. The use of the x-ray, sedatives, removal of focal infections and surgery are next most valuable in the order named.

Surgical Clinic of Dr. Thomas G. Orr

1. A CASE OF THIGH AMPUTATION WITH PLASTER PILON

This patient is a farmer 55 years of age. He entered the hospital September 6th, with diabetes mellitus and gangrene of a right thigh amputation stump. The only point of interest to us in his past history is the observation that sugar was discovered in his urine eight years ago.

The onset of his present illness began two months ago. Following three weeks at plowing corn he produced a small blister on the third toe of his right foot. Gangrene began in this toe almost at once. Five days after the blister appeared the toe was amputated. Infection then began and spread to the dorsum of his foot. Gangrene also spread beyond the base of the toe and the foot was amputated through the middle third of the leg three days after the first operation. The skin flaps of this operation became gangrenous and 19 days later a third amputation was done through the middle third of the thigh. This in turn was followed by gangrene of the flaps.

On admission to the hospital the flaps of a recent amputation of the middle third of the right thigh were sloughing. The entire end of the stump presented an ulcerated surface covered with pus and the remains of dead skin. During the following three weeks he was treated with iletin by Dr. Major and the stump was kept in continuous hot, moist boric acid dressings. At the end of this time the slough had all disappeared and the granulations were healthy in appearance. At this stage a reamputation was done and healing per primum obtained except at the point of drainage which

closed a few days later.

At the end of six weeks this plaster pilon was fitted to his stump. It is applied by first fitting saddle felt around the stump and then applying the plaster to form the socket. After about half of the plaster socket is completed a portion of an old crutch is incorporated in the plaster making the peg. It is very simple to cut the lower end of the crutch the proper length. When the socket is almost complete elastic webbing is incorporated to attach to a strap going over the opposite shoulder to hold the pilon in place. The patient bears his weight on the ischial tuberosity which sits on the posterior edge of this socket.

The wearing of a plaster pilon or some such apparatus forms an important part in the treatment of amputation stumps. All stumps require training and shrinking before a permanent artificial limb can be worn. A temporary plaster socket is one of the best and most inexpensive ways of toughening and shrinking a stump and should be used in all cases when future artificial limb wearing is contemplated. The early wearing of a temporary appliance also helps to avoid the crutch habit and gives the patient hope that he may overcome quite easily some of his disability. As a rule these pilons should be applied as soon as the stump has healed and the swelling has disappeared.

2. A CASE OF THROMBO-ANGIITIS OBLITERANS

This patient is a discharged Canadian soldier 45 years of age. He was admitted to the hospital September 17, 1923, complaining of pain in the legs and difficulty in walking.

His trouble began five years ago with slight swelling between the toes, which was painful when walking. The next symptom was burning in the bottoms of the feet and toes. This trouble gradually grew worse until about eighteen months ago when he became unable to walk because of the pain in the legs. The last seven months he has spent in hospitals. As early as three years ago he was unable to walk more than one city block without stopping to rest because of pain in the feet and legs. After a rest of about one minute he could walk another block before the pain returned. Twenty-two months ago a small blister appeared on the right fourth toe. This was started by the application of liniment which caused an irritation. Gangrene rapidly developed and his toe was amputated. The right foot has been blue for the last four-

teen months when held in the dependent position. It is rather interesting that it was not necessary for this patient to trim his toe-nails but twice during the last two years. He has smoked fifteen to twenty cigarettes per day during the last twenty years.

On examination the following positive findings were noted: He had many decayed teeth with marked pyorrhea. His blood pressure was 112S and 72D. He was unable to walk without pain. Both feet were cyanotic when in the dependent position. This was more pronounced on the right. The dorsalis pedis, posterior tibial and popliteal arteries could not be felt on either side. The fourth toe has been amputated on the right.

Because of the age of the patient, the absence of the pulses in the leg, the intermittent claudication, severe pain, cyanosis of extremity in the dependent position and blanching in the elevated position a diagnosis of thrombo-angiitis obliterans was made. The disease appeared so far advanced that palliative treatment was considered unwise and amputation has been done as you can see about five inches below the knee. In spite of the impaired circulation the wound has healed perfectly.

Discussion: The etiology of this disease is probably infectious. It has been attributed to cigarette smoking. It is more common in males than in the females in a ratio of 8 to 1. It is most common in Russian Jews and Japanese. This patient is a full-blooded Irishman.

Dr. Russell L. Haden has made cultures from the extracted teeth of this patient and injected the organism found into a rabbit. No lesions were found in the blood vessels, but there was a marked growth on the aortic valve which is quite uncommon in a large series of rabbits injected with streptococci from other patients. Dr. H. R. Wahl has found the typical lesion of thrombo-angiitis obliterans in the vessels of the amputated leg. The disease is a true angiitis and not an endarteritis obliterans.

In the differential diagnosis arthritis, neuritis, weak feet, metatarsalgia and various other forms of gangrene must be considered. This patient had a diagnosis of rheumatism for two or three years.

The treatment has been both medical and surgical. Arterio-venous anastomosis between the femoral vessels, ligation of the femoral vein and amputation have been the surgical procedures used. Cases have been treated by intravenous injection of

Ringer's solution, saline solution and sodium citrate solution with some reported success. Large quantities of Locke's solution has been introduced into the duodenum with the Reyfuss tube. These solutions have been used to decrease the viscosity of the blood. Heat and cold have been applied in various ways. Alternate plunging the foot and leg into hot and cold water has been used. Bernheim calls this "blood vessel exercise." We are now treating this patient's left leg with hot and cold packs. Heat and cold are often very painful and will not be tolerated by the patient. Minor operations should be avoided unless absolutely necessary because the slightest trauma often precipitates gangrene as in this case following a trivial blister with liniment.

—————R—————

Does Mercury Kill Spirochetes?

The experimental work recently conducted on animals by Nichols, Brown & Pierce, Hill & Young, Gruzhit, and others has clearly demonstrated that when an adequate dose of a mercurial salt is injected the spirochetes are killed—directly by the mercury.

Hill & Young, as well as Gruzhit, have shown that if a mercurial with low toxicity and high mercury content is selected the spirocheticidal results follow without any deleterious effects on the kidney epithelium, unless the dose, of course, is unnecessarily large.

Mercurosal (Parke, Davis & Company) we understand, is ideally adapted as a spirocheticide because of its synthetic, organic nature and because of its compliance with the requisites of low toxicity and high mercurial content. See the announcement of the manufacturers in the advertising section.

—————R—————

A doctor should stick to his profession. When he goes outside his profession while he is in practice he needs to be a super-man not to invite criticism or to bring ridicule on the profession. An instance of the kind is attracting public attention at the present time. The lay press says that a Swede physician has crossed a saxophone and a clarinet and the hybrid has a range of five octaves. The Good Book tells us there is one unparadonable sin. This is it? Another astigma to queer the profession.

THE JOURNAL of The Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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THE MEDICAL SCHOOL SITUATION

The school of medicine seems to have gotten into the lime light again. At any rate the newspapers find enough of interest in its affairs for occasional comment. The Kansas City Journal Post published an article from its staff correspondent in New York under date of June 28, stating that a conference was to be held with officials of the Rockefeller Foundation and Governor Davis, the Chancellor and others, relative to a possible endowment for the medical school. The Governor is quoted as saying: "We wish to put the medical school on the map in a way that will make it one of the greatest institutions of its kind in the West, and I believe it is assured if we can get an endowment from the Rockefeller Foundation. Although there always has been a handicap for lack of funds, the institution has made a wonderful showing and I believe it has established a reputation that will mean something when we present our case to the Foundation officials."

This is particularly encouraging in that the Governor has so definitely expressed his favorable attitude toward the school, has publicly approved the work accom-

plished there and declared himself for a program of improvement.

The conference which was referred to in the above was duly held and later reports seem to indicate that something may be expected from the Foundation. At any rate, the information comes that Kansas is one of three schools the Foundation has in mind to aid during the coming year.

Under date of July 24, the Topeka Capital published the following:

"A reorganization of the medical school at Kansas University is forecast in the announcement of A. B. Carney, chairman of the state board of administration, that the medical school is to have a full-time dean in charge of the school is an effort upon the part of the State to raise the standard of the school, Mr. Carney pointed out. "The Rockefeller Foundation now is making many of its gifts to state institutions," Carney said. "We have been conferring with foundation heads and intend to place our medical school in a place where it will be eligible to receive gifts."

The obvious inference from this statement is that a full-time dean is one of the requirements of the Foundation in distributing its benefits. With the information at hand it is not possible to discuss the basis for such conclusions, however, there are several institutions that have received aid from the Foundation that do not have full time deans.

The first announcement of the intention of the board to replace Dr. Sudler appeared in the Kansas City Star, July 22, in an article under a Topeka date line.

"A shake-up in the staff of the Bell Memorial hospital, Kansas City, Kan., was indicated today when A. B. Carney of the state board of administration announced the removal of Dr. M. T. Sudler and Dr. E. P. Hall. Dr. Sudler has been the dean of the medical school of the state university fourteen years and was the highest paid member of the university faculty except the chancellor. Chairman Carney said Dr. Sudler had been a part-time member of the staff, devoting considerable time to his private practice. A full-time dean will be appointed to succeed him. Dr. Hall is head of the ear, nose and throat division of the hospital.

"Numerous complaints of dissatisfaction

with the school have been made by students, Mr. Carney said, adding that 50 per cent of the students have been discontented with the management of the institution. He indicated a complete reorganization might be undertaken."

In the same paper, July 30, the following appeared under a Lawrence date line:

"The reasons, Governor Davis says, 'were responsible for the removal of Dr. M. T. Sudler and John Shea were given here, the home of the state university, by the governor tonight.

"Dr. Sudler, Mr. Davis says, was removed as dean of the school of medicine because he had not carried out the program mapped out by the board of administration. Dr. Sudler was incapable of handling executive duties, the governor said."

"Mr. Shea was removed as superintendent of buildings and grounds of the university the governor continued, because it was alleged he had been a slacker in the World War."

"When Chancellor E. H. Lindley refused to dismiss Dr. Sudler and Mr. Shea, the governor said, he decided no chancellor could keep this power to himself, and he, Mr. Davis, would take matters in his own hands. He would be the umpire, he asserted, without the aid of The Kansas City Star, the Lawrence Journal-World, or Chancellor Lindley."

Other articles appearing in the Star and Times condemn the action of the board and the governor and attribute this action to political motives. In an editorial in its issue of July 24, the Star says:

"Kansas is witnessing the spectacle of its state university being used as a political plum tree for 'deserving Democrats.' The dean of the medical school, Dr. M. T. Sudler, whose name has been linked indelibly with the state medical school and with Bell Memorial hospital, has been dismissed because Governor Davis has a Democratic politician who must be 'taken care of.'"

"John Shea, for ten years superintendent of buildings and grounds at the state university, has been dismissed because he is a member of the Catholic Church, and Governor Davis, according to the statement made to Shea, does not want to 'become involved in a fight with the Ku Klux Klan.'"

"Both these changes were made over the protest of Chancellor Lindley, who is responsible to the people of Kansas for the conduct of the university. In other words,

Governor Davis has taken the management out of the hands of the chancellor and has made even the position of members of the faculty mere political jobs."

"For a quarter of a century, at least, the bar against politics in the state university has been sacredly observed. No governor or board of control has dared even to attempt to put the university under the spoils system."

"Let Kansas make up its mind to this inevitable situation: If it allows its university to be turned over to the political jobbers, or if it permits the Ku Klux Klan or any other organization to dip its political fingers into the affairs of the school in any way, Kansas university is doomed."

"Governor Davis may save his political ambitions by bartering university positions to politicians, but when he opened the door of that institution for political purposes, he opened the door for the admission of an influence that can mean nothing only ruin and disaster for the school."

"The state university cannot be maintained as a political machine. But Governor Davis and his state board of control have started it on a course that, in the end, will bring the university to the pawnshop of every political broker in the state. That is the meaning of the dismissal of Dr. Sudler and John Shea, whatever camouflage may be used to hide the truth of the incident."

Most of us will endorse the sentiments expressed in the Star's editorial—if the premises are correct. One must keep in mind the inclination of newspaper men to attribute political motives to every candidate for office, during the campaign period at least. However, the rather peremptory action of the Board in removing Dr. Sudler and Dr. Hall against the advice and wishes of the Chancellor may seem entirely out of harmony with the expressions credited to the Governor in New York.

In the Topeka State Journal of August 5, the following article appeared:

A medical school that will vie with any other such institution in the country, and one that will meet the approval of the Rockefeller Foundation, is the avowed goal of the state board of administration in reorganizing the staff of the Kansas University Medical college.

"We are making a thorough search for a new dean who will put the college on its feet," said A. B. Carney, chairman of the

board of administration, today. "We have a half dozen men under consideration, but have made no choice. We're going to get a real administrator for the Bell Memorial hospital if we have to pay him \$10,000."

Dr. M. T. Sudler was removed recently as dean of the institution because of his "failure as an administrator," according to Mr. Carney, and because he had "used the position for his personal aggrandizement." Dean Sudler had devoted only a small share of his time to hospital affairs, according to Mr. Carney, since he was on the payroll as part time instructor. His salary was \$6,800—second only to the Chancellor—but of this sum only \$1,250 was for his work as dean. Doctor Sudler's successor will be a full time dean, as much an executive as a physician, Chairman Carney indicated.

"Complaints came from 50 per cent of the graduates," the chairman explained, "that things were not properly run at the medical college. Ninety per cent of the professional men of the state were criticizing the administration of the school."

With a view to securing an endowment, Governor Jonathan M. Davis has written officials of the Rockefeller Foundation asking their suggestions for a successor to Doctor Sudler.

"My idea is to build up an institution to compare favorably with the great Mayo brothers clinic, and with the better known medical colleges like that of Iowa," the governor remarked. The new administration, he declared, will endeavor to bring the school into more favorable light before the Rockefeller board, and he expressed confidence that an endowment fund would be granted. Mr. Carney said the Rockefeller fund had never given the Kansas medical school any assistance.

"Our school will never progress so long as its seniors outnumber its freshmen," asserted Mr. Carney. "In the school year 1922-1923 twenty-three seniors were enrolled in the medical college, against eighteen freshmen. At the same time, in the liberal arts college, there were 393 seniors and 861 freshmen, and in engineering 134 seniors and 300 freshmen. Until the Kansas boys come to their own state for medical training, the \$500,000 plant at the Bell Memorial hospital cannot pay the dividends it should.

"We intend to put it up to the new dean. He will be given authority to reorganize his entire staff. He will make it an institution the best of the medical profession will be glad to serve. At present a number

of staff members are being paid for no service whatever, while others who render invaluable services remain unpaid. Fifteen men are on the hospital payroll today at \$300 a year!"

Mr. Carney's statement that complaints have come from fifty per cent of the graduates of the school and that ninety per cent of the professional men of the State are criticizing the administration of the school is startling, in view of the apparent indifference heretofore manifested by the profession in the affairs of the school.

If Mr. Carney's statement is approximately correct, and he has not very largely overestimated the unpopularity of Dr. Sudler, a new dean should certainly be appointed.

Dr. Sudler is not without faults—no man of notable ability is, but he seems to have some tenacious friends among those who know him intimately. These friends very generously ascribe all the credit for whatever advance the school has made during the past ten years to his constructive visions, his high ideals and his unselfish devotion to the school.

The welfare of the medical school is so intimately linked with the interests of the medical profession of the State that it would not be inadvisable for the committee on the medical school to investigate the situation and make such suggestions to the Board as their judgment may dictate.

One should not be misled by newspaper stories, either of actions or motives, when the political pot is boiling. The expressions credited to the Governor in New York had the sound of sincerity. Let us hope then that he has acted unselfishly and has been guided not only by his own wisdom and foresight but with the advice and counsel of other men of even greater wisdom and greater foresight, who are interested, as every Kansas citizen should be, in the development of a great medical school at Rosedale.

—————R—————

CHIPS

The difference between a quack and a respectable practitioner of medicine is not the method or remedy but in the results obtained.

A Japanese scientist has demonstrated that a man's stature may be increased by feeding him on a fish powder made from a certain sort of fish. Another fish story.

There appears to be an innate objection by the medical man to an innovation in the practice unless he is the innovator. Moral. Education in a learned profession does not predicate always liberality of opinion or practice.

Have you a fresh air fiend in your community? Dr. Munk advises, "Caress him (or her) with a club." The fresh air fiend does more harm than good. He is a crank. A crank is good only to start things. He is a poor chauffeur. He is unable to guide. His energy is consumed in starting things. Fresh air is necessary for continued health. But any essential or virtue when not properly guided or overworked becomes injurious or a vice.

Palate ticklers are injurious to the animal body, particularly to man. He being the only animal that in a normal condition overeats. When the appetite is satisfied the tickler tempts man to eat more than he should. The tickler should be eaten first always and less food will be taken with no disastrous effects to the body.

Malnutrition is the cancer goat. In the United States, it is claimed, statistics show that cancer has increased 800 per cent in sixty-five years. Man being what he eats who dares to ignore the goat or disown him?

Sex can be foretold by spotting the ovum (?) In the hen egg an air cell or space can be seen in proper light. If the air cell is tipped it is a rooster. If the air cell is straight it is a pullet. When the atom can be visualized, the position of the air cell in the impregnated human ovum can be located and the sex foretold.

The astronomy of the atom is the name of the new science by Dr. R. A. Millikan of Pasadena, Calif., and winner of the Noble prize of \$40,000. He says, "It may indeed be called the astronomy of the atom, since it deals with the orbits of the electrons in their revolution about the central nucleus."

Sir Arthur Keith says, "We are justified in regarding the pituitary gland as one of the principal pinions in the machinery which regulates the growth of the human body and is directly concerned in determining human stature, cast of features,

texture of skin, and character of hair—all of them marks of race. When we compare the chief racial types of humanity—negro, the uongol, and the Caucasian or European, we can recognize in the last named a greater predominance of the pituitary than in the other two. The sharp and pronounced nasilization of the face, the tendency to strong eyebrow ridges, the prominent chin, the tendency to bulk of the body and height of stature in the majority of Europeans are best explained, so far as the present state of our knowledge goes, in terms of pituitary functions." So much functioning takes lots of blood. That is the reason the torcular herophili is placed so close to the pituitary?

Prophylactic Inoculation of Dogs Against Rabies.—The evidence for the efficiency of prophylactic immunization in persons bitten by rabid animals has long been too convincing to permit of doubt. In Japan experiments to reduce the frequency of rabies by inoculation of the dog population show that its frequency with dogs has been greatly reduced. (*Jr. A.M.A., July 5, '24.*)

The advertisements of firms that sell apparatus, especially for physiotherapeutics and diagnostic uses, show a tendency to stress the idea that the purchase of such apparatus will increase his income by impressing the layman with the scientific attainments of the individual who uses it. No decent man in the medical profession thinks of adding to his armamentarium for the purpose of financial gain. An advertiser's appeal to buy a piece of apparatus because of the "psychic effect" which it may produce on the patient is repugnant and insulting. Any firm that thinks it is going to obtain the good will of the medical profession by an appeal to the sordid is sadly mistaken. (*Jr. A.M.A., July 5, '24.*)

An Anesthetic Monopoly.—U. S. patent 1,491,740 was issued April 22, 1924, and was assigned by the patentee to the S. S. White Dental Manufacturing Co. The specifications of the patent describe a process for making a nearly anhydrous nitrous oxid. The patentee claims patent rights, not only on his process for reducing the moisture-content and in nitrous oxid manufactured by that process, but on all nitrous oxid whatsoever conforming to the arbitrary standards stated in his claims, no matter how manufactured. The process, if novel, is presumably worthy of patent protection. But nitrous oxid has been recog-

nized as a chemical entity since 1776, and it has long been possible to reduce by various processes the moisture-content incident to its manufacture. By what process of reasoning the patentee claims to have "invented" nitrous oxid of low moisture-content and how the patent office came to concede his claim, are beyond the comprehension of persons not versed in the mysteries of patent logic and patent law. It would not be to the public interest for any concern to obtain a monopoly on nitrous oxid free from moisture. It is to be hoped that the S. S. White Dental Manufacturing Company will not be able to secure a monopoly on dry nitrous oxid. (*Jr. A.M.A., July 26, '24.*)

As early as 1868, a British committee appointed to investigate the subject arrived at the conclusion that mild mercurous chlorid (calomel), mercurio chlorid and taraxacum—all reputed chologogues—do not increase the flow of bile but probably act on the bile expelling apparatus. Recently the latest experimental procedure was applied to judge the status of a number of substances that have at various times been alleged to influence bile flow. With the exception of bile salts, negative results only were obtained with such substances as calomel and salicylates. All dependable evidence warrants the recommendation that clinicians consider the advisability of abandoning therapeutic efforts to "stimulate" the liver through the use of substances having alleged chologogic effects. (*Jr. A.M.A., June 7, '24.*)

Dose of Thyroid for Children.—Thyroid effects are generally obtained by the administration of Dried Thyroid U. S. P. (Thyroideum Siccum.) There is, however, no fixed dose of thyroid for children. The amount of dried thyroid to be administered must be determined in each case. A safe initial dose for a child three years of age would probably be 0.015 gm. of dried thyroids two or three times a day. The best way is to start with a small dose and to gradually increase it until either satisfactory improvement or symptoms of intolerance manifest themselves. As soon as the desired effects are obtained or symptoms of intolerance manifest themselves, the dosage must be reduced. (*Jr. A.M.A., June 21, '24.*)

It has been alleged that the continuous taking of morphine causes the presence in the blood serum of a substance having a

protective effect against this drug. However, it has been shown that the blood of a tolerant animal does not contain any protective substance against morphin, nor was there any substance capable of conferring any immunity to the toxic action of morphin on an animal into which it is injected detected in the blood serum of a human being who has acquired a high tolerance to morphin. Also, it has been proven that a specific toxic substance is not produced by habituation to morphine. Since some methods of treating drug addiction have been based on the belief that a toxic substance is formed, the time has arrived for seeking a new point of departure in the explanation of the various manifestations that are presented by drug addicts. (*Jr. A.M.A., June 14, '24.*)

The following is a list of vehicles that can be used to prepare pleasant tasting mixtures: Aqueous Elixir of Glycyrrhiza N. F., Compound Elixir of Cardoman N. F., Compound Elixir of Almond N. F., Compound Elixir of Vanillin N. F., Glycerinated Elixir of Gentian N. F., Elixir of Anise N. F., Red Aromatic Elixir N. F., and Compound Syrup of Asarum N. F. The formulas of these preparations may be found in the Epitome of the U. S. Pharmacopeia and National Formulary, published by the American Medical Association. (*Jr. A.M.A., June 28, '24.*)

—R—

Proceedings of the Fifty-Eighth Annual Meeting of the Kansas Medical Society

Held at Wichita, May 7 and 8, 1924

(Continued from Last Month)

17. R. W. Harless, Wichita, aged 46, shot and killed himself May 18, 1923, supposedly on account of ill health.

18. Frederick D. Grant Harvey, (colored), Lawrence, aged 57, died May 25, 1923, of heart disease, at the Wheatley-Provident Hospital, Kansas City, Mo. He was graduated from the Meharry Medical College, Nashville, 1892. Was a member of the Kansas State and American Medical Association.

19. John Robert Hawkins, Rosalia, aged 54, died December 20, 1923, of heart disease. He was graduated from the Hospital Medical College, Central University, Louisville, 1896.

20. Edward L. Higginbotham, Galena, aged 65, died suddenly February 29, 1924. He was graduated from the Louisville Medical College about 1880.

21. John Mawry Hunt, Wellington, aged

85, died January 11, 1924, of senility. He was graduated from the St. Louis Medical College, 1877. He was a Civil War veteran, a resident of Wellington since 1883, formerly city health officer, and the second president of Sumner County Society. He was retired and had dropped his membership.

22. William A. Iles, Urbana, aged 80, died August 5, 1923, of senility. He was graduated from the University Medical College, Kansas City, Mo., 1890. He was a Civil War veteran.

23. Benjamin Irwin Johnson, Chanute, aged 48, died at Dallas, Texas, February 29, 1924, of pernicious anemia. He was graduated from the College of Medicine, Denver, 1899. Was a member of the State and American Medical Association.

24. C. Clayton Koons, Larned, aged 51, died in November, 1923, of cerebral hemorrhage. He was graduated from the Kansas City Medical College, 1901. Was a member of the State and American Medical Association.

25. Simon Butler Langworthy, Leavenworth, aged 66, died April 15, 1924, of heart disease. He was graduated from the Kansas City Medical College, 1887, and was a lecturer at his alma mater for many years. Before he took up the study of medicine he taught school, and his interest in education continued through the fourteen years he served as a member of the school board. He was a Mason, Knight Templar, charter member of the Leavenworth Rotary Club and a horticulturist of distinction. During the World War he was a member of the Medical Advisory Board. He was vice president of the Leavenworth County Society and a member of the State and American Medical Associations.

26. John Milton Latta, Wichita, aged 70, died August 25, 1923, following a long illness. He was graduated from the University of Michigan Medical School in 1883.

27. George Eugene Locke, Holton, aged 74, died September 25, 1923, of senility. He graduated from the Eclectic Medical College, New York, 1880. He was retired, but an honorary member of the Jackson County Society.

28. Ernest J. Lutz, Kansas City, Kan., aged 58, died of diabetic gangrene February 6, 1924, at Bethany Hospital. He was graduated from the College of Physicians and Surgeons, St. Louis, 1891. He had practiced in Kansas City 37 years. Had been police surgeon, chairman of the Board of Health and assistant professor of inter-

nal medicine at Rosedale from 1905 to 1912. He was a widely known Mason and founder of the Scottish Rite in Kansas City. He was a member of the County, State and American Medical Associations.

29. Irwin Johnson Maggard, Wichita, aged 82, died February 4, 1924, of senility. He graduated from the Missouri Medical College, 1877. Was a Civil War veteran with the Missouri troops, and came to Kansas in 1876. Was formerly a member of the state society, but retired in 1912.

30. Hiram W. Marsh, Winfield, aged 89, died August 29th, 1923, of senility. He was graduated from University of Michigan Medical School, 1866. Was retired.

31. Leon Miesse, Cherokee, aged 65, died January 3, 1924. He was graduated from the Cincinnati Medical College, 1880, and was a member of the American Medical Association.

32. David B. Moore, Osage City, aged 82, died March 7, 1924, from an injury following a fall. He was graduated from St. Joseph's Hospital Medical College, 1880. He was an ordained minister and had taught school. He was county coroner for four years and had been on the county pension board twenty-five years. He was a Civil War veteran and a Mason. Had been a resident and a practicing physician in Osage County for thirty years. He was a member emeritus of Shawnee County Medical Society, Kansas State and American Medical Association.

33. Robert Melville Moore, Olathe, aged 56, was killed January 21, 1924, by a Santa Fe train hitting his automobile. He was graduated from the Medical Department of Washington University, St. Louis, 1892. Was local surgeon for the Santa Fe and Frisco railroads, and was widely known in the state. He was a member of the Johnson County, State, and American Medical Associations.

34. Glenn E. Mowery, Salina, aged 31, was instantly killed July 22, 1923, in an automobile accident at Wichita. He was graduated from the University of Kansas School of Medicine, Rosedale, 1920. He was a veteran of the World War, and county coroner. He was a member of the American Medical Association.

35. Guy Jenkins Mulvane, Topeka, aged 73, died November 4, 1923, of heart disease. He was graduated from the College of Physicians and Surgeons, Keokuk, 1878. He was on the staff of the Christ Hospital and Chief Medical Director of the Bank Savings Life Insurance Company. He was

a member of the Shawnee County, State and American Medical Associations.

36. Samuel Carpenter Pigman, Concordia, aged 67, died November 5, 1923, of carcinoma of the kidney. He was graduated from the Jefferson Medical College, Philadelphia, 1879. Was formerly member of the school board and county coroner. He was a member of the Cloud County, State and American Medical Association.

37. Edward Parker Pitts, Atchison, aged 43, was instantly killed June 14, 1923, at Home City, Kan., in an automobile accident. He was graduated from the Emsworth Medical College, St. Joseph, 1902. Was eye, ear, nose and throat specialist to the Missouri Pacific Railway and the State Orphan Home. He was a member of the American Medical Association.

38. Aaron Puderbaugh, Ozawkie, aged 86, died June 1, 1923, at Kansas City, Mo. of chronic mitral regurgitation. He was graduated from the Kansas City Medical College, 1882. He was a minister of the gospel. Came to Kansas in 1862. Was formerly a member of the state society, but had retired since 1922.

39. Henry Edward Reece, Lawrence, aged 42, dropped dead of heart disease November 9, 1923, while hunting near Buffalo, Kan. He was graduated from the University Medical College, Kansas City, Mo., 1900. He served in France as first lieutenant of the 89th Division Ambulance Corps. He was a member of Wilson County Society.

40. Samuel Moses Riggs, Muscotah, aged 70, died at the Christian Church Hospital, Kansas City, Mo., May 28, 1923, of cardiovascular disease following influenza. He was graduated from the Eclectic Medical Institute, Cincinnati, 1874.

41. Claude A. Roberts, Solomon, aged 52, died November 13, 1923, of pernicious anemia. He was graduated from the St. Louis College of Physicians and Surgeons, 1900, and was widely known in Central Kansas. He was a member of the American Medical Association.

42. Harrison Burges Savage, Galena, aged 60, died at Joplin, Mo., November 8, 1923, of Bright's disease. He was graduated from Bellevue Hospital Medical College, New York, 1888. Was a member of the Cherokee County and Kansas State.

43. Kimble R. Scott, Parsons, aged 45, died January 24, 1924, of cancer of the bladder. He was graduated from the National Medical University, Chicago, 1907.

He was a member of the County, State and American Medical Associations.

44. Charles Leonard Smith, Independence, aged 57, died suddenly October 3, 1923, of heart disease. He was graduated from the State University Iowa College of Medicine, 1904. Was an eye, ear, nose and throat specialist, and past president of Montgomery County Society. He was a member of the County, State and American Medical Association.

45. Alfred Ernest Smolt, Newton, aged 51, died June 2, 1923, at Trinity Lutheran Hospital, Kansas City, Mo., following a long illness from gastric ulcer. He was graduated from Rush Medical College, Chicago, 1897, and for a time was in charge of the Atwood Hospital, Stillwater, Minn. He was on the Staff of Bethel Hospital, Newton, and during the World War served on the local examining board of Harvey County. He was local surgeon for the A. T. & S. F. Railroad, and was a member of the American R. R. Surgeons, as well as his County, State and the American Medical Association.

46. Clark N. Starry, Coffeyville, aged 52, died October 17, 1923, of cerebral hemorrhage. He was graduated from the Homeopathic Medical College, Kansas City, Mo., 1897. Was a member of Montgomery County, State and American Medical Association.

47. Charles Edward Stedman, Junction City, aged 82, died February 1, 1924, of senility. He was graduated from Rush Medical College, Chicago, 1866. He came to Kansas in 1868, and had been in Junction City thirty-seven years.

48. Egerton Ryerson Switzer, Salina, aged 86, died August 16, 1923, of senility. He was graduated from the Medical Department of McGill University, Montreal, Canada, 1865. He had been county coroner, and was one of the first physicians to come to Salina in 1869. He had practiced medicine more than fifty years.

49. Joel T. Tinder, Parsons, aged 78, died June 23, 1923, of paralysis. He was graduated from Central College of Physicians and Surgeons, Indianapolis, 1883.

50. Clifton Allen Thomas, Fredonia, aged 43, died at Albany, Oregon, October 10, 1923, of tuberculosis. He was graduated from the Kansas City Medical College, 1905. His specialty was roentgenology. He was past president, and secretary of Wilson County Society. During the World War his physical condition prevented his joining the regular army, and he served as

a Red Cross surgeon in Siberia.

51. John N. Venard, Ness City, aged 75, died April 2, 1924, of senility. Retired.

ELMER E. LIGGETT, *Chairman*.

Report accepted and filed.

Mr. A. C. Huey, special agent for the Aetna Life Insurance Company, Hartford, Conn., appeared before the house and explained their special policy which would apply only to members of the Kansas Medical Society.

Secretary's expense account since January 26, and also salary for past year was allowed; total amount, \$924.05.

Meeting adjourned.

House of Delegates met in the grill room of the Hotel Lassen May 8th, 8:30 a. m. Dr. E. D. Ebright called the meeting to order, and the regular order of business was followed.

After roll call, the following officers were elected for the ensuing year: President, Dr. Alfred O'Donnell, Ellsworth; Vice Presidents: Dr. F. A. Carmichael, Osawatomie; Dr. O. D. Sharpe, Neodesha; Dr. F. C. Boggs, Topeka. Treasurer, Dr. George M. Gray, Kansas City; Delegate to the American Medical Association, Dr. E. D. Ebright, Wichita. Councilors: First District, Dr. S. Murdock, Jr., Sabetha; Second District, Dr. C. C. Goddard, Leavenworth; Seventh District, Dr. E. G. Mason, Cawker City; Eighth District, Dr. J. D. Riddell, Salina. For two years unexpired terms: Fifth District, Dr. J. T. Axtell, Newton; Eleventh District, Dr. J. A. Dillon, Larned.

STANDING OF THE COUNCIL

First District—Dr. S. Murdock, Sabetha; term expires 1927.

Second District—Dr. C. C. Goddard, Leavenworth; term expires 1927.

Third District—Dr. P. S. Mitchell, Iola; term expires 1925.

Fourth District—Dr. O. P. Davis, Topeka; term expires 1926.

Fifth District—Dr. J. T. Axtell, Newton; term expires 1926.

Sixth District—Dr. E. S. Edgerton, Wichita; term expires 1925.

Seventh District—Dr. E. G. Mason, Cawker City; terms expires 1927.

Eighth District—Dr. J. D. Riddell, Salina; term expires 1927.

Ninth District—Dr. C. S. Kenney, Norton; term expires 1926.

Tenth District—Dr. D. R. Stoner, Ellis; term expires, 1925.

Eleventh District—Dr. J. A. Dillon, Larned; term expires 1926.

Twelfth District—Dr. W. F. Fee, Meade; term expires 1925.

Proposed amendment to the constitution, increasing the dues from three to ten dollars, which was held over from last year for final action, was lost.

The following communication was received from Mr. A. C. Huey, special agent for the Aetna Life Insurance Company, Hartford, Conn. It was accepted with the understanding that the treasurer and secretary would add a clause to the last paragraph, which would show that the society would not be responsible for the collection of any premiums under the agreement.

To the Kansas Medical Society: The Aetna Life Insurance Company of Hartford, Conn., with its capital stock of ten million dollars, surplus of seventeen million dollars and total assets of over two hundred million dollars, proposes to issue to the subscribing members of your society, its Group Form of Physicians and Surgeons Liability Policy, as per sample attached hereto, limiting the company's liability as to each member so insured for loss on account of injury or death of one person to ten thousand dollars, and subject to the same limit for each person, the company's total liability as to each member insured, during any one annual premium period, limited to thirty thousand dollars; and pay all expenses of witnesses and attorneys' fees and court costs taxed against such member as stated in the policy.

This proposal is made upon these conditions: The annual premium of each subscribing member desiring such protection shall be \$20.55, and that this company shall solicit and procure subscriptions of not less than 210 members of your society; that your society will instruct your secretary to order such policy of insurance, which said policy shall not be binding upon your society or the subscribing members thereof until this company obtains the subscription of at least 210 members in good standing in your society; that we have the co-operation of your officers in making this solicitation.

Respectfully submitted, A. C. Huey, special agent.

(Note—See Council Meeting for clause which was inserted in last paragraph.)

Resignation of Dr. O. P. Davis as chairman of defense fund committee was referred to the council for final action with

the suggestion that he be retained by some satisfactory agreement.

A vote of thanks was extended to the Sedgwick County Medical Society for their liberal entertainment and hospitality shown the members of this Society, also to Dr. E. D. Ebright for his efficient services as president of the organization.

Meeting adjourned.

SCIENTIFIC PROGRAM

The following scientific program was presented:

Wednesday, May 7th

"Address of Welcome"—Hon. Henry J. Allen, Wichita.

"Medical Education in Kansas"—Dr. E. D. Ebright, President, Wichita.

"Justice for the Streptococcus"—Dr. M. L. Bishoff, Topeka. Discussion opened by Dr. W. M. Mills, Topeka.

"Head Pain of Nasal Origin"—Dr. H. L. Scales, Hutchinson. Discussion opened by Dr. J. W. Cheney, Wichita.

"The Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax"—(Lantern Slides)—Dr. Charles O. Giese, Colorado Springs, Colo.

"Laryngeal Tuberculosis"—Dr. E. G. Ganoung, Salina. Discussion opened by Dr. R. E. Cheney, Salina.

"Surgical Evaluation of Abdominal Pain"—Dr. H. C. Embry, Great Bend. Discussion opened by Dr. E. E. Morrison, Great Bend.

"Duodenal Perforation"—Dr. H. L. Charles, Atchison. Discussion opened by Dr. W. K. Fast, Atchison.

"Eye Injuries and Diseases Treated With Milk Intra-muscularly"—Case Reports—Dr. James W. May, Kansas City. Discussion opened by Dr. P. M. Krall, Kansas City.

"The American Medical Association, Its Purposes and Future"—(Lantern Slides)—Dr. Frank Billings, Chicago.

"Management and Treatment of Pneumonia from the Standpoint of the General Practitioner"—Dr. O. D. Sharpe, Neodesha. Discussion opened by Dr. A. C. Flack, Fredonia.

"A Few Remarks on Goiter"—Dr. R. C. Dugan, Ottawa. Discussion opened by Dr. George M. Gray, Kansas City.

Thursday, May 8th

"The Physician's Relations to Some Important Social Problems"—Dr. A. J. Hetherington, Mayfield. Discussion opened by Dr. M. W. Axtell, Argonia.

"Minor Eye Injuries"—Dr. J. F. Gsell, Wichita.

"Dysthyroidism a Factor in Secondary Anaemia"—Dr. W. A. Baker, Leavenworth.

"Anomolies in the Separation of the Placenta"—Dr. Wm. H. Vogt, St. Louis.

"My Ulcer"—Dr. E. F. Day, Arkansas City. Discussion opened by Dr. D. L. Snyder, Winfield.

"Salvarsan in the Treatment of Pyelitis"—Dr. R. W. Hissem, Wichita. Discussion opened by Dr. A. D. Gray, Topeka.

"Local Anesthesia in Abdominal Surgery"—Dr. W. J. Gates, Kansas City. Discussion opened by Dr. C. C. Nesselrode, Kansas City.

"Treatment of Burns Including Skin Grafts"—Dr. Martin Hagan, Wichita. Discussion opened by Dr. John L. Evans, Wichita.

"Fractures of the Humerus"—Dr. Willis C. Campbell, Memphis.

"Mental Conflicts and Physical Symptoms"—Dr. M. S. Gregory, Dighton. Discussion opened by Dr. Karl A. Menninger, Topeka.

"Tobacco, Its Use and Abuse"—Dr. F. L. Abbey, Newton. Discussion opened by Dr. Arch D. Jones, Wichita.

The following resolution was passed at the afternoon sessions May 8th:

"Resolved, That this society wishes to endorse the recommendations set forth in the address of President Ebright yesterday in regard to the Medical Department of the State University."

A luncheon was served to the secretaries of the various county societies Wednesday, May 7th, in dining room adjoining the grill, Hotel Lassen. The following secretaries were present at the meeting: Dr. Louise Richmond, Hutchinson; Dr. P. S. Mitchell, Iola; Dr. L. V. Turgeon, Wilson; Dr. J. A. Milligan, Garnett; Dr. L. F. Quantius, McPherson; Dr. H. L. Clarke, La Cygne; Dr. R. E. Cheney, Salina; Dr. T. H. Jamieson, Wellington; Dr. W. G. Gillett, Wichita; Dr. H. M. Glover, Newton; Dr. C. W. Longenecker, Kingman; Dr. C. S. Kenney, Norton; Dr. W. H. Rea, Arkansas City; Dr. J. H. Henson, President Labette County Society, Mound Valley; Dr. W. E. McVey, Editor of the Journal; Dr. E. D. Ebright, President, and Dr. J. F. Hassig, Secretary.

Everybody got acquainted with the other fellow. It was a "peppy" meeting, and we feel that much benefit was derived from it.

J. F. HASSIG, *Secretary*.

Societies

FINNEY COUNTY MEDICAL SOCIETY

The meeting of the Finney County Medical Society was held Wednesday evening, June 25th, at the Elk's home. Dinner was served to a large number of the profession. The members of the society present were: Dr. Sanford Bailey, Dr. Albert Brown, Dr. J. B. Edwards, Dr. Hastings, Dr. Chas. Rewerts, Dr. Ronald Troup, Dr. W. J. Stilson, Dr. W. B. Williams, Dr. E. W. Ross, Dr. Z. B. Amphlett and Dr. Grissoms of Syracuse.

The visiting doctors included Dr. Melencamp, Dr. McCarty, Dr. J. G. Janney and Dr. Perrin, Dodge City; Dr. Spearing, Cimarron; Dr. Fee, Meade; Dr. Huddleston and Dr. Day, Liberal; Dr. Gregory, Dighton and Herman Sartorius and H. W. Serger, medical students, were also present.

Two druggists, Thane Covert, Cimarron, and H. Ravenscraft, Liberal, came especially to hear the paper, "The Drug Store and The Doctor," prepared by G. B. Norris, Garden City.

Dr. F. W. Huddleston of Liberal, gave a paper on "The Significance of Uterine Hemorrhage and Pelvic Pain."

Dr. R. M. Troup of Garden City presented a paper on "The Treatment of Chronic Otitis Media with Calcium and Parathyroid.

W. J. STILSON, M.D., Secy.

RENO COUNTY SOCIETY.

In honor to the memory of a deceased member, Doctor Clements C. Klippel, the Reno County Medical Society met in the Chamber of Commerce rooms on Wednesday, June 11th, 1924.

In his demise we are conscious of the loss of a father, brother, counselor and sincere friend to every honorable member of the medical profession and to the laity, a life devoted to the alleviation and cure of physical ills and mental disquietude.

His entire professional life was devoted to conscientious service to his fellowmen—regardless of station, race or remuneration. He was punctual, considerate, thorough—ever loyal to the best interests of his patient; kindly of manner but unyielding in principle and during the past thirty-eight years such has been his life to our profession and service to this community that well may he have said with the poet, Tagore:

"On the day when death will knock at thy door what wilt thou offer to him?
Oh, I will set before my guest the full vessel of my life—

I will never let him go with empty hands.
All the sweet vintage of all my autumn days and summer nights,
All the earnings and gleanings of my busy life will I place before him
At the close of my days when death will knock at my door."

The Reno County Medical Society members extend heartfelt sympathy to his wife, daughter and son.

(Signed)

H. G. WELSH.

G. R. GAGE.

C. A. MANN.

The members of the Reno County Medical Society had but learned of the passing of a member, Dr. Klippel, when the additional sad news came to them that Dr. Stephens M. Colladay had also been called to his reward.

It seems a marked coincidence that these two, each of whom had served so well and over such a great period of years together in this community, always the best of friends and each entertaining the highest regard for each other, should be called to their "Eternal home" so nearly at the same hour.

Doctor Colladay possessed a staunch personality, positive, yet broad-minded; firm of his position, yet kindly considerate, true to his principles of right.

He was a leader among men, both in his profession and as a citizen. Loved by his patients, admired and esteemed by all who knew him.

The Reno County Medical Society extends the sympathy of its members to his sons, Edward and Charles Colladay.

(Signed)

H. G. WELCH.

G. R. GAGE.

C. A. MANN.

QUARTERLY MEETING OF THE GOLDEN BELT MEDICAL SOCIETY.

Manhattan, Kan., July 3, 1924.

Meeting called to order at 3:00 p. m. by President Karl Menninger.

Due to the lateness of the hour the order of business was dispensed with until later in the evening and the Scientific program immediately begun.

First number on the program, a paper on "The Early Recognition of Pulmonary Tuberculosis," by Dr. C. S. Kinney, Norton.

Second number was a paper on "Nervousness," by Dr. Karl Menninger, Topeka.

Third number was a paper on "Post-Operative Treatment," by Dr. J. D. Riddell, Salina.

Fourth number was a paper on "The Treatment of Difficult Fractures," by Dr. Robert Schaufler, Kansas City, Mo.

All of these were freely discussed.

Immediately after the scientific program a forty minute automobile ride through the Kansas State Agricultural College campus and the city was enjoyed by all.

The members were returned to the country club where at 6:00 p. m. a very delicious fried chicken dinner was served during which music was furnished by Dodge's orchestra.

Following the dinner the business of the organization was transacted, consisting of the allowance of bills and the choosing of the next meeting place. An invitation was extended by the Junction City representatives to entertain the Golden Belt at the next meeting, which will be the first Thursday in October. The motion to accept the invitation carried unanimously.

Applications for membership were as follows: Dr. B. A. Higgins, Lucas; Dr. R. A. Stewart, Russell; Dr. E. M. Sutton, Salina.

These men had been passed by the Board of Censors and were voted to membership by an unanimous vote.

The Board of Censors was appointed by the president, consisting of: Dr. C. F. Menninger, Topeka; Dr. J. D. Colt, Sr., Manhattan; Dr. Benjamin Brunner, Wamego.

Following this the society was entertained by Dr. Hill of the Kansas State Agricultural college, who gave some very amusing readings and made the 45 minutes consumed by him seem only too short.

Following this a very appropriate one act play, entitled "hysteria" was rendered by four summer school students of the Department of Public Speaking of the Kansas State Agriculture College under the guidance of Prof. E. G. McDonald. Those taking part in the sketch were: Clara Mary Smith, Kathryn King, Harold Flamm, Robert Andres.

A vote of thanks was extended the Riley County Medical Society by the Golden Belt

Medical Society for the good time had by all.
JAMES D. COLT, Jr., Secy.

TRI-STATE ASSOCIATION

The Inter-State Post Graduate Assembly, directed by the Tri-State District Medical Association, extends a hearty invitation to the physicians of America who are in good standing in their State or Provincial societies to attend the annual assembly, which is to be held at Milwaukee, Wisconsin, October 27th, 28th, 29th, 30th and 31st, five full days of post graduate work.

Among the eminent members of the profession and citizens who have accepted places on the program are the following:

Dr. Nicholas Murray Butler, president of Columbia University, New York, N. Y.

Sir Arthur William Currie, president of McGill University, faculty of medicine, Montreal, Canada.

* Merritte W. Ireland, surgeon-general of United States army, Washington, D. C.

Monsieur J. Jusserand, French ambassador to United States, Washington, D. C.

Edward E. Stitt, surgeon-general of United States navy, Washington, D. C.

Professor Theodore Tuffier, Prof. of surgery, faculty of medicine, Paris, France.

INVITATION TO AMERICAN PHYSICIANS.

This association is supervising an Inter-State Post Graduate Clinic Tour to Canada, British Isles and France to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities:

Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyon and Strasburg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under \$1,000.00.

The tour is open to physicians in good standing in their State Societies, their families and friends who are not physicians.

For information, write the Managing-Director, William B. Peck, Freeport, Ill.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

AT DES MOINES, IOWA.

The annual meeting of this association, to be held September 17, 18 and 19, in the city of Des Moines, under the presidency of Dr. H. J. Lehnhoff of Lincoln, will be the outstanding event of the fall season in the Missouri valley.

The plan of dividing the sessions into two sections—clinical and didactic—will, we are sure, meet the hearty approval of all in attendance.

Des Moines has already an established reputation for doing things in a big way, demonstrated last fall by the success of the Inter-State Clinical Conference, and with the co-operation of the Polk County Medical Society, the clinical features of this approaching meeting may be anticipated with full assurance of seeing and hearing something worth while.

The following committees have been appointed:

General Arrangements—Drs. John Martin, L. K. Meredith and W. J. Fenton.

Clinics—Drs. J. C. Rockafellow, Daniel J. Glomset and John H. Peck.

Physical Arrangements—Drs. Thos. A. Burcham, V. A. Ruth.

Entertainment—Drs. G. N. Ryan, J. F. Auner and Howard D. Gray.

Finance—Drs. M. L. Turner, W. W. Pearson and Oliver J. Fay.

Exhibits—Dr. W. J. Fenton.

The three morning sessions will be devoted to a series of diagnostic clinics, given in the assembly room of the society, Hotel Fort Des Moines, which will be headquarters. Those taking part in the clinics are as follows:

Obstetrics—Dr. A. C. Page.

Medicine—Drs. W. L. Bierring and J. S. Weingart.

Surgery—Drs. J. C. Ryan, O. J. Fay and J. A. Downing.

X-Ray—Dr. T. A. Burcham.

Diabetes—Dr. E. B. Minnett.

Neurology—Dr. F. A. Ely.

Heart—Dr. M. M. Myers.

Pediatrics—Dr. L. F. Hill.

Dermatology—Dr. J. F. Auner.

Urology—Dr. C. W. Losh.

Orthopedics—Dr. W. E. Wolcott.

Sessions for reading and discussion of papers will be held each afternoon and evening. The banquet will be held on Thursday evening.

Personals

Dr. F. A. Holden, a 1920 graduate of the University of Maryland Medical college, has joined the Hatcher Clinic group in Wellington, limiting his practice to diseases of the eye, ear, nose and throat.

Dr. Frank Kerr has returned from a six months visit in Ohio and has resumed practice in Perth, Kan.

Dr. A. J. Hetherington has given up practice in Mayfield and has moved to Minnesota.

Dr. W. M. Martin, city health officer of Wellington, is ill. Dr. Sarchett is acting in his place.

Dr. F. F. Netherton and wife of Wellington are spending the summer in California.

Dr. Robert H. McIlhenny, having finished his internship at St. Francis hospital, has settled in Conway Springs. His father, R. A. McIlhenny and Mrs. McIlhenny are touring the west for the summer.

Dr. F. A. Holden returned to Batlimore for his bride making the return trip by auto.

Dr. F. A. Cavanaugh and Mrs. Cavanaugh of South Haven are spending a few months in the east.

Dr. H. A. Vincent and Mrs. Vincent of Wellington will spend August in Wisconsin.

Dr. E. J. Shults has moved to Eldorado. His practice is limited to diseases of the eye, ear, nose and throat.

Dr. H. A. Mercer of Geuda Springs visited Louisville, Ky., long enough to convince a brown-eyed nurse to change her name to Mercer.

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Notes From the Medical School

Dr. W. W. Wineinger (1923) is located at Enterprise, Kan.

Dr. A. L. Curry, who was a student here in 1918-1919, is located at Winchester, Kansas. He was a recent visitor at the Medical school.

One of the most impressive events of the Annual Fall Clinics in Kansas City will be the unveiling of the bronze memorial tablet to the late Lieutenant Wm. T. Fitzsimmons at the new Bell Memorial hospital. The tablet will be unveiled Thursday, October

16, by Surgeon-General Merritte W. Ireland of the United States army and Surgeon-General Hugh S. Cummings of the United States Public Health service. Lieutenant Fitzsimmons, the first American officer killed in the World War received his M.D. at the University of Kansas school of medicine in 1912.

Dr. Walter E. Dandy, professor of surgery at the Johns Hopkins university, was a recent visitor at the Medical School and on his return to Baltimore wrote the following letter to the dean of the school:

"During a recent visit to Kansas City I took the opportunity of visiting your medical school, particularly the clinical department. I was so much impressed with the character of the men and of their work that I thought possibly you might be interested to know the impression they make upon those interested in medical education. I have just returned from a trip abroad, and I had, of course, visited many of the schools in this country, and I cannot recall a group of such enthusiastic and earnest workers who are making their impressions not only upon the students but upon the progress of medicine, including, of course, its various branches. The secret of any school's success lies almost solely in its men, and you should surely be proud of the group which is representing Kansas, and from which we expect great things in the future.

Yours very truly,

WALTER E. DANDY."

Dr. Ralph H. Major, professor of medicine, has been invited to attend the meeting of the Inter-State Post-Graduate Assembly, at Milwaukee, in October, as a guest of honor and also to deliver an address.

Dr. J. J. Brownlee (1911. is president of the Reno County Medical Society. Dr. H. L. Church (1920) is president of the Crawford County Medical Society. Dr. G. R. Hastings (1920) is President of the Finney County Medical Society.

The following publications from the Medical School, appeared in the various journals other than this journal, during the months of June and July, 1924:

"Excretion of creatinine in uranium nephritis."—Journal of Laboratory and Clinical Medicine.

"Further observations on the elevation in blood pressure produced by guanidine compounds."—Bulletin John Hopkins Hospital.

"Relationship between certain products of metabolism and arterial hypertension."—Journal American Medical Association.

"Creatinin test for renal function."—Southern Medical Journal.

"Cellular reactions following x-ray and radium therapy."—Journal Missouri Medical Association.

"Unusual organism (*Alternaria* Sp.) occurring in chronic pulmonary disease."—Journal American Medical Association.

Intra-abdominal biliary exclusion from the intestines; cholecystnephrostomy; a new method."—Surgery, Gynecology and Obstetrics.

"The buccal and lingual mucosa in neurosyphilis."—Medical Journal and Record.

Dr. C. C. Nesselrode addressed the members of the LaBette County Medical Society at their July meeting at Parsons.

Dr. W. R. Carey (1923) is surgical interne at Holy Cross Hospital, Salt Lake City, Utah.

Dr. E. W. Willhelm y (1923) has been appointed assistant resident in medicine at the Cleveland City hospital.

The interne appointments from the members of the Senior Class for the next year have been made and are as follows:

Byron John Ashley, General hospital, Kansas City, Mo.

Earl R. Beiderwell, Bethany Hospital, Kansas City, Kan.

Otto T. Blanke, Bell Memorial Hospital, Kansas City, Kan.

Adolph Boese, General Hospital, Kansas City, Mo.

Irwin S. Brown, Cleveland General Hospital, Cleveland, Ohio.

Wakins A. Broyles, St. Louis City Hospital, St. Louis, Mo.

Ralph S. Casford, New Haven Hospital (Yale), New Haven, Conn.

Chas. H. Cooke, Carter Hospital, Thermopolis, Wyo.

Burleigh E. DeTar, Bell Memorial Hospital, Kansas City, Kan.

Robert W. Diver, Hartford City Hospital, Hartford, Conn.

Samuel H. Ferguson, General Hospital, Kansas City, Mo.

Caryl R. Ferris, Cleveland General Hospital, Cleveland, Ohio.

In Surgical Sutures

Ligatures

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Very truly yours,

S. S. GLASSCOCK, M.D., Res. Supt.

A. L. LUDWICK, A.M., M.D., Asst. Supt.

EDITH GLASSCOCK, B.S.

Business Manager

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George R. Lee, Bell Memorial Hospital, Kansas City, Kan.

Joseph E. McNally, St. Francis Hospital, Wichita, Kan.

Van Hooper Magill, St. Francis Hospital, Wichita, Kan.

George E. Penwell, New Haven Hospital (Yale), New Haven, Conn.

Fred C. Rewerts, General Hospital, Kansas City, Mo.

Wilbur B. Spalding, Ancon Hospital, Ancon, Canal Zone.

R

DEATHS

Clarence M. Smith, Richland, Kan., aged 70, died June 15, of heart disease. He was graduated from the Eclectic Medical Institute in 1885.

Albert G. Sexton, Clyde, Kan., died June 24, of cerebral hemorrhage. He was graduated from Rush Medical college in 1878.

Homer Garton Collins, Topeka, aged 32, died, July 5, of injuries received in an automobile accident. He was graduated from the Medical College of Virginia, Richmond, in 1917. He was a member of the Kansas Medical Society.

Thomas R. Edwards, Chanute, Kan., died May 18, 1924. He was graduated from the College of Physicians and Surgeons, Medical Department, Kansas City University, Kansas City, Kan., 1895. He was aged 57.

John A. Nelson, Tribune, aged 45, died May 4, at the Missouri Pacific Railway Hospital in St. Louis. He was graduated from John A. Creighton Medical college, Omaha, in 1906. He was a member of the Kansas Medical Society.

William C. Baird, Fulton, aged 88, died May 15, of senility. He was graduated from the Eclectic Medical Institute, Cincinnati in 1872.

Miles H. Anderson, Salina, aged 82, died June 5. He was graduated from the University of Louisville (Ky.) Medical Department in 1867.

R

Human Stock Judged and Scored at the Kansas Free Fair

For the fifth consecutive year human stock will be examined and scored at the

Kansas Free Fair at the Eugenics Building during the week of September 8-13. This is the now well-known Fitter Families competition for the Governor's Trophy and Capper Medals. Especial attention is given to recording all the important facts in the family history, including longevity, susceptibility to disease, fecundity, dominant physical and mental traits, outstanding achievements and failures, etc. This is put down in graphic form, and a copy is given to the family, with the suggestion that they continue this as a permanent family record.

After the parents have told all they know and found out usually how much they do *not* know about their remote and immediate ancestors, the individual members of the family are put through what is probably the most detailed and searching physical, mental and nervous examination ever assembled in one place as a health examination.

These findings are recorded and interpreted to the family and a copy given to them to keep. The object of this is to demonstrate the value of the yearly health examination and drive home the idea that positive health is possible for most people and that many preventable and curable deviations occur and go uncorrected.

No perfect individual has ever been found, although some very fine individuals and families have been examined. Always there has been defective teeth, posture, vision, or some deviation from perfection.

Even serious defects are sometimes found in persons thinking themselves in perfect health. Three cases of beginning Bright's disease and two of diabetes have been discovered by the routine uranalysis, which is one item of the examination.

Several cases of valvular heart disease have been discovered, also spinal curvatures and a variety of other organic and functional defects.

Although a Wassermann test is made on every adult, no positive reaction has as yet been found.

An interesting feature of the intelligence ratings is the fact that, as a whole, the mothers test higher than the fathers, while among the children the boys and girls test about alike.

Thus far only good families have been accepted. To be eligible to take the examination, the father and mother must appear with all their children. They must seem to be of high grade physically and intellectually and free from illness or defect. This



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In a tent adjacent to the Eugenic Building is a eugenic exhibit, presented and explained by the Department of Eugenics of the University of Kansas. It is hoped to add a health exhibit and a health consultant this Fall.

This movement is arousing interest in the study of practical human inheritance and crystallizing the idea that civilization will advance in the degree in which we become a race of human thoroughbreds.

Some very fine stock is being discovered among our native Kansas families, both rural and urban. Thus far the honors have been pretty evenly divided between rural and city families.

In all, about 75 complete families have been examined.

Little attempt has been made to spread this procedure, but interest seems to be developing in other states. Last fall the Tri-State Fair of Savannah, Ga., put on a Fitter Families competition. The Eugenics Committee of the United States of America, of which Irving Fisher is chairman, and which is a member of the International Eugenics Commission, has just endorsed the Fitter Families project by making the Kansas group a sub-committee on Eugenic Work in Fairs. They have set aside a subsidy for the purpose of spreading this work in other states, and several states have already applied for it.

This puts an obligation upon Kansas to set a pattern for the world—and also gives us a challenge to bring out our finest families and show the world we "can't be beaten," economically, politically, engeni-ally, or any other way!

—R—

Attention—Former Illinois Doctors!

Will any and all doctors, former residents of Illinois, or descendants of pioneer physicians of the "Illinois country," communicate at once with the Committee on Medical History, Illinois State Medical Society, 6244 North Campbell avenue, Chicago, Illinois.

Under the sponsorship of the Illinois State Medical Society there is in preparation "A History of Medical Practice in the

State of Illinois," that must go to the printer at an early date. In order that this volume may be accurate and complete, all possible assistance is asked from every source, as to personal data and experiences, including diaries, photographs and similar documentary mementoes of pioneer Illinois doctors and of progressive phases of medical practice, as well as of achievements in fields other than those of medical science. Prompt return in good condition is promised for anything loaned the committee, the personnel of which is:

O. B. Will, M.D., Peoria, Ill.

C. B. Johnson, M.D., Champaign, Ill.

Carl E. Black, M.D., Jacksonville, Ill.

George A. Dicus, M.D., Streator, Ill.

James H. Hutton, M.D., Chicago, Ill.

Chas. J. Whalen, M.D., Chicago, Ill., chairman.

The scope of the volume will range from the discovery of Illinois to modern times. Through this period of over 250 years there is much of thrilling interest to be detailed. Collection of the human interest data can come only from the families or closest friends of the pioneers, many of whom long ago removed to distant sections of the United States. Through the kindness of editors of various medical journals, it is hoped to reach those who may be able to loan valuable material to the compilers who guarantee careful guardianship of anything sent for publication.

Some of the subjects touched will be: Physicians accompanying early explorers; government surgeons and physicians in attendance at the forts; early medicine in Illinois; theories of healing from the days of the Aborigines through the mound-builders; French and English explorers; the ante-boundary days; sporadic settlers; medical attendants for the covered wagon; herb doctors; primitive surgery; medicine and missionaries; migration of pioneer physicians to new territory; the circuit-riding and "saddle-bag" doctors and their burdens, triumphs and perils; pioneers as "utility citizens;" Illinois men in war time—there are four conflicts to be considered since the opening of the Nineteenth Century; Illinois medical men away from medicine, i. e., in industry, in science, in belles-lettres—art, music and literature.

Photographs especially are desired. Also copies of letters, statements of "cures" and "new methods," diaries and the like.

KANSAS MEDICAL SOCIETY

Chartered by the Territorial Legislature of Kansas, February 19, 1859

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ANNUAL DUES \$3.00, due on or before February 1st of each year.

Dues should be paid to the Secretary of the Component County Society, or, if not a member of a County Society, to the Secretary of the Kansas Medical Society.

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Bourbon	R. Aikman Ft. Scott.....	W. T. Wilkening Ft. Scott....	2d Monday
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Butler	G. C. Hall, Eldorado.....	L. L. Williams, Eldorado.....	2d Friday
Central Kansas..	D. R. Stoner, Ellis.....	L. V. Turgeon, Wilson.....	
Chautauqua	W. T. Courtwright, Sedan.....	W. L. McNaughton, Sedan.....	
Cherokee	R. C. Lowdermilk, Galena.....	J. D. Graham, Columbus.....	2d Monday
Clay	E. N. Martin, Clay Center.....	C. E. Earnest, Cay Center.....	2d Wednesday
Cloud	C. W. Caton, Concordia.....	Ross E. Weaver, Concordia....	Last Thursday
Coffey	J. C. Fear, Waverly.....	A. B. McConnell Burlington..	
Cowley	C. C. Hawke, Winfield.....	W. H. Rea, Arkansas City.....	1st Tues. except July, Aug., Sept.
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Douglas	W. O. Nelson, Lawrence.....	E. P. Sisson, Lawrence.....	1st Thursday
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Finney	G. R. Hastings, Lakin.....	W. J. Stilson, Garden City....	
Ford	T. L. McCarty, Dodge City....	W. F. Pine, Dodge City.....	Last Wednesday
Franklin	G. C. Mahaffey, Ottawa.....	W. L. Jacobus, Ottawa.....	
Harper		H. W. Gaume, Harper.....	3d Wednesday, Mar., June, Sept., Dec.
Harvey		H. M. Glover, Newton.....	First Monday
Jackson	R. Robson, Mayetta.....	C. A. Wyatt, Holton.....	1st Wednesday, Jan. April, July, Oct.
Jewell	J. E. Hawley, Burr Oak.....	L. V. Hill, Randall.....	
Johnson	F. F. Green, Olathe.....	J. T. Orr Olathe.....	
Kingman	R. W. Springer, Kingman.....	A. M. Dick, Kingman.....	2d Thursday except summer months
Labette	J. H. Henson, Mound Valley....	D. R. Wilson, Mound Valley....	4th Wednesday
Leavenworth ..	F. J. Haas, Leavenworth.....	J. L. Everhardy, Leavenworth..	2d and 4th Mondays
Lincoln	A. M. Townsind, Barnard.....	Malcolm Newlon, Lincoln.....	2d Thursday
Linn	J. R. Shumway, Pleasanton....	W. P. Irwin Pleasanton.....	2d and 4th Fridays
Lyon		J. S. Fulton, Emporia.....	1st Tuesday
Marion	S. N. Mallison, Hillsboro.....	S. P. Loomis, Lost Springs....	2d Wednesday each month
Marshall		J. L. Eddy, Marysville.....	Last Thursday uly, Oct., Jan., April
Meade - Seward..	Geo. Smith, Liberal.....	J. W. Messersmith, Liberal....	
Miami	W. L. Speer, Osawatomie.....	P. E. Kubitschek Osawatomie..	Last Friday
Mitchell		E. E. Brewer, Beloit.....	
Montgomery ..	L. B. Chadwick, Coffeyville....	J. A. Pinkston, Independence..	2d Friday
McPherson	C. R. Lytle, McPherson.....	F. L. Quantlus McPherson....	
Nemaha	F. R. Dillingham, Sabetha.....	S. Murdock Sabetha.....	Last Thursday every other month
Neosho	W. E. Royster, Chanute.....	E. A. Davis, Chanute.....	Second Monday
Norton-Decatur ..	H. O. Hardesty, Jennings.....	C. S. Kenney, Norton.....	Called
Osborne	J. E. Henshall, Osborne.....	S. J. Schwaup, Osborne.....	
Pawnee		E. A. Reed, Larned.....	2d Tuesday
Pratt	Athol Cochran Pratt.....	G. E. Martin, Cullison.....	1st Monday
Reno	J. J. Brownlee, Hutchinson....	Louise Richmon, Hutchinson..	4th Friday
Republic	J. W. West, Narka.....	H. D. Thomas, Belleville.....	2d Thursday in November
Rice	H. R. Ross, Sterling.....	O. W. Schmidt, Lyons.....	Last Thursday
Riley	R. R. Cave, Manhattan.....	W. M. Reitzel, Manhattan....	2d Monday
Rush-Ness	W. S. Grisell, Ransom.....	N. W. Robinson, Bison.....	Called
Saline	W. E. Fowler, Brookville.....	R. E. Cheney, Salina.....	2d Thursday
Sedgwick	A. E. Gardner, Wichita.....	W. G. Gillett, Wichita.....	1st and 3d Tuesdays
Shawnee	W. H. Weldling, Topeka.....	E. G. Brown, Topeka.....	1st Monday
Smith		V. E. Watts, Smith Center....	Called
Stafford	J. J. Tretbar, Stafford.....	J. T. Scott, St. John.....	2d Wednesday
Sumner	Earl Clark, Belle Plaine.....	T. H. Jameson, Wellington....	Last Thursday every quarter
Washington	H. D. Smith, Washington.....	W. M. Earnest, Washington....	
Wilson	A. C. Flack, Fredonia.....	E. C. Duncan, Fredonia.....	
Woodson	O. E. Robinson, Yates Center..	S. H. Murphy, Yates Center..	2d Tuesday Dec., March, June, Sept.
Wyandotte	L. G. Allen, Kansas City.....	L. L. Bresette, Kansas City..	Every 2d Tues. ex. summer months

Splenic Enlargement in Chronic Cardiac Disease

James E. Talley and Walter H. Lindsey, Philadelphia (Journal A. M. A., August 9, 1924), examined the histories in 201 adults and 102 children (12 years and under) in house and cardiac clinic cases in which the physical examinations were complete. The diagnoses include mitral obstruction, incompetence, the combined lesions, aortic insufficiency, myocarditis alone and with auricular fibrillation, several congenital lesions and a few scattered. Acute rheumatic fever and its congeners were the largest etiologic factors in both adults and children. Syphilis played no role in the children examined, but occurred in 6 per cent of the adults; but none of these had a palpable spleen. Rejecting all cases in which there was any suspicion of acute or recurrent endocardial trouble, there were 198 adults and eighty-eight children considered. Of the adults, sixty-six had a palpable liver and three a palpable spleen recorded. In the children, the liver was palpable in thirty-eight, the spleen in five. Relatively, the spleen was thus palpable approximately

four times as frequently in children as in adults; but the relatively greater volume of the spleen in childhood must not be forgotten. Roughly, other signs of passive congestion were recorded with the same frequency as the enlarged liver. The findings correspond with the now accepted conclusions with regard to the infrequency of a demonstrable splenomegaly due to pure stasis alone. They also confirm the expected greater incidence in children. Talley and Lindsey believe that distinct splenomegaly in chronic cardiac disease suggests a recurrent endocarditis.

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POSITION wanted in doctor's office by young lady experienced in laboratory, X-ray and electrotherapy. Experience more important than salary. E. B. O. 420 Cypress Ave., Kansas City, Mo.

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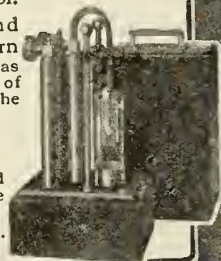
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Laryngeal Tuberculosis

E. G. GANOUNG, M.D., Salina.

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

This term is applied, in this paper, to an invasion of the laryngeal tissues by tubercle bacilli, accompanied by the formation of edema, deposits, and ulceration as a result of such invasion.

The history of the evolution of the recognition of this pathological condition is of marked interest, but it is mentioned here-in only to call attention to the introduction of the laryngoscope in 1854 and the announcement of the discovery of the tubercle bacillus in 1882, and the resulting influence on the knowledge of the process of this pathology. It had long been known that edema and ulceration of the larynx commonly occurred in patients dying of pulmonary disease then known as consumption, but it was after many years of observation and the information gained by the above mentioned discovery and invention that this laryngeal condition was recognized as a phase of a distinct disease. When the term laryngeal tuberculosis was first used it included all forms of laryngeal ulceration, tubercular, luetic, and malignant. Even after the characteristic lesions of pulmonary tuberculosis were well understood, it remained doubtful if the same process occurred in the larynx, for calcareous deposits, the chief sign of involvement of the lung, rarely, if ever are found in the larynx.

The etiology of this disease may be considered under two conditions, primary and secondary. The true etiology, of course, is the tubercle bacillus, and hence it would be better to say that the mode of entrance, rather than the etiology, may be considered as primary and secondary. Primary entrance of the bacilli into the larynx is considered to be rare, but the latest information is quite conclusive that it is far more prevalent than it was thought to be. Cases in which the bacilli are inhaled and thus effect an entrance directly into the tissues of the larynx are rare, but undoubtedly do occur. The commonly accepted use

of the term primary invasion of the larynx does not exclude the presence of such lesions as tubercular adenitis or otitis media, but it does exclude the presence of pulmonary lesions.

It is conceded by the best clinicians and pathologists that about ninety per cent of tubercular cervical glands originate in the tonsils, and that about six per cent of supposedly healthy persons show tubercular lesions in the tonsils. Hyperplastic pharyngeal tonsils conceal tubercular lesions in about five per cent of the cases, and tubercular lesions have also been found in normal sized tonsils.

A number of cases are on record in which the laryngeal lesion followed tubercular otitis media, and these cases developed signs of pulmonary lesions considerably later. The infection in such cases must come from the discharge which pours out of the pharyngeal orifice of the Eustachian tube, and into the pyriform fossa and the larynx. Such cases are included clinically among the primary ones. Infection from tubercular ulcers of the nose, pharynx or mouth is quite improbable, as the disease in these parts is rare until the late stage. There seems to be no certain relation between the points of entrance of the infection and the points of development of the disease in the larynx, but there is a discussion as to the mode of the laryngeal infection, whether it be endogenetic or exogenetic. It is suggested that pressure upon the recurrent laryngeal nerve by tubercles of the apex, not clinically demonstrable, or by like action upon the part of enlarged bronchial and tracheal glands, causes paresis of the laryngeal muscles, with loss of the corresponding half of the larynx, resultant stagnation of the secretions, and thus increased susceptibility of the mucosa to infection from the sputum. It is also suggested that the first macroscopic alterations in cases of laryngeal tuberculosis are points of more or less circumscribed edema covered by healthy mucous membrane. These swellings are found to be subepithelial tubercles, the epithelium itself and an intervening zone of varying thickness re-

maining normal. Hence the pro and the con of the exogenetic and the endogenetic modes of infection of laryngeal tissues. Since it has been experimentally proved that tubercle bacilli can penetrate normal mucous membranes and even lymph glands without leaving a trace of their entrance, the subepithelial distribution of tubercles and bacilli can not be accepted as conclusive proof of endogenetic infection. The majority of morbid anatomists support the idea of exogenetic infection from the sputum, while the majority of clinicians give their support to the idea of endogenetic infection, that is, by the way of the lymph and blood streams and the tissue spaces. So far as I know, in no case of tuberculous laryngitis thus far studied has an absence of foci in the glands been proved, even when the lungs are entirely free from the disease.

The condition in the larynx may be a part of a general infection, and is then overshadowed by the condition of other organs, and is of little practical importance save for a few specific symptoms and their palliative treatment. The overwhelming majority of cases are of this nature, but since primary invasion of the larynx by tubercle bacilli is more or less frequent, and especially so in the field of general medicine, it is well for all of us to think of this condition on the presentation of any patient with a throat lesion.

As to the frequency with which pulmonary cases show laryngeal lesions actual figures are of little value, because so much depends upon whether the patients are examined during the early or the late stage of the disease, or in the post-mortem room. Recorded figures show great variance.

The mode of entry into the larynx is undoubtedly most frequent by surface infection, the organism usually being brought into the larynx in the sputum, and as the respiratory portion of the chink of the glottis is between the arytenoid cartilages and during ordinary respiration the chink of the glottis is closed except at this portion, the products of infection are principally expelled from the trachea in this region and thus come in contact with the arytenoid cartilages and the vocal processes of the cords. Hence the prevailing site of the lesion in the larynx in the onset of the infection is in the posterior commissure. This same principle holds for infection carried into the larynx from above by inspiration. Later in the disease, however, the infection passes by continuity to the cords

and ventricular bands and other parts of the larynx. The marked edema of the arytenoid cartilages is due to deep infiltration of the tissues as the disease progresses, and as result of mixed infection perichondritis and even suppuration and abscess formation may follow with the destruction of the cartilages. The arytenoids are most frequently the seat of perichondritis, with the epiglottis, the thyroid and the cricoid following in order of frequency. In the primary form of laryngeal invasion, however, perichondritis of the thyroid is thought to be most frequent.

Unilateral ulceration of the cords is rather rare except in the earlier stages of the disease, for when an ulcer appears on one cord it usually spreads to the opposite cord at the point of contact. This will occur although no other laryngeal lesion is present, and the most satisfactory explanation is that surface infection takes place from the diseased focus.

As a further consideration of surface infection four avenues of ingress may be mentioned: Through unbroken epithelium; through gland ducts; through superficial erosions; through the floors of shallow ulcers. Though many of us are inclined to be somewhat skeptical of the invasion of bacteria through intact epithelium, J. Wright, of Brooklyn, (New York Medical Journal, September 26, 1896) has furnished convincing proof that the tubercle bacillus does enter and pass through intact epithelium. The ducts of the muciparous glands, especially of the ventricles and the subglottic region act as receptacles for the bacilli. Superficial erosions resulting from irritation and maceration of the sputum, and traumatism from cough are especially prone to form in the folds of mucous membrane and the posterior laryngeal wall where the sputum stagnates. Tiny abscesses in the epithelium which are probably due to other organisms break down and form shallow ulcers which become infected through their bases by the tubercle bacillus. This last statement is more hypothetical than practical, for the vast majority of ulcers seen in the larynges of tubercular patients are already infected by this organism.

Although infection of the larynx by the tubercle bacillus usually occurs through the surface, it may take place through the vessels, as in cases of general miliary tuberculosis. But in ordinary cases the larynx is not infected from the lungs by the blood vessels or the lymphatics, and the reason

for this is that there is no direct path between these organs by either the blood or the lymph streams. Attempts have been made to support this theory of infection by the lymph by the citation of cases in which both the lung and the larynx were infected unilaterally with the disease limited to the corresponding side in the two organs. When, however, the laryngeal tissues are *first* infected, the disease spreads by continuity of tissue, by the blood and the lymph streams, and by the acinous glands. The conclusion of the above seems to me a logical one from the basis of anatomical structure.

It has also been suggested that the larynx and the lungs are closely related through the vagus and the sympathetic nerves, but an infectious disease can hardly be transmitted from one organ to another by a relationship of this kind. We can see how a trophic disturbance might act by lowering the resistance of the larynx, and in that way be a means of encouraging the infection of the larynx from the lungs, especially in the chronic laryngitis of consumptives.

Some investigation has been made to determine the extent played by the nose in the infection of the larynx and the general system by the tubercle bacillus, but the conclusion deduced from the best evidence is in support of the idea that inhalation by the way of the nose is not a common mode of entry for the tubercle bacillus. This bacillus has been found in the nose, but its rarity there suggests rather accidental circumstances. Coverglass preparations were made from the septum and the inferior turbinates of fifty patients in all of whom the bacilli were present in the sputum. Most of these specimens contained numerous organisms, but in only *one* was the bacillus of tuberculosis found, and in *this* case the patient was in the advanced stage of the disease. It can not be doubted that the tubercle bacillus is inhaled, but inspired air through a *healthy* nose is almost germ free by the time it reaches the larynx. St. Clair Thomson and Hewlett found by experiment that 84 per cent of the cultures made from the interior of *healthy* noses were sterile as to the tubercle bacillus, but Strauss found this bacillus in nine out of twenty-nine cases of pulmonary tuberculosis.

In this connection it is interesting to note that patients suffering from atrophic rhinitis are proportionally more frequently

attacked by pulmonary tuberculosis, and in such proportion are subject to the laryngeal form of the disease. Though results of experiments differ, bacteria of all forms are much less numerous in the nose than would be expected. Thus the nose must have some power of disposing of micro-organisms, and it has been shown that the nasal secretions inhibit the growth of bacteria, though they are not directly germicidal. This power of inhibition is probably due to ciliary action and the flow of the mucus. If the foregoing be true, it might be suggested that the free use of the handkerchief for the removal of nasal secretions is far preferable from a sanitary point of view than the drawing of these secretions into the pharynx by continuous sniffing. And again it might be suggested that the indiscriminate removal of inferior turbinates might reduce this barrier of protection.

Among the predisposing factors in the etiology of laryngeal tuberculosis may be mentioned the prevalence of the disease among males in the ratio of about two or two and a half to one. This sex incidence is not the same at all ages, however. Women are almost immune to tuberculosis of the larynx after the age of fifty, but are comparatively susceptible below the age of twenty. Thus the proportion of males affected rises steadily as age advances.

Age as a predisposing factor to tubercular laryngitis points to the third and fourth decades of life, and it is also true that *pulmonary* tuberculosis is most common at this age, yet this period of active pulmonary condition alone does not explain the preponderance of the laryngeal condition, for the proportion of consumptives attacked by tubercular laryngitis progressively increases up to the limit of this age period, and then steadily declines. The condition is rare in children, and it is only in the late stage of the pulmonary disease that it attacks them.

The greater liability of men can not be explained by their greater susceptibility to pulmonary tuberculosis, though the somewhat high frequency of the laryngeal disease in girls under twenty may be referred to the large proportion of cases of the pulmonary condition in this sex at this age limit, ten to twenty years of life.

The comparative immunity to laryngeal tuberculosis enjoyed by children may be accredited in part to the fact that the pulmonary form of the disease runs such a rapid course in the young that a fatal termination ensues before there is time for

a general infection, or the laryngeal condition may not be observed.

No specific occupation seems to predispose to tubercular laryngitis to any appreciable extent. Sedentary and dusty occupations supply a large number of laryngeal cases, but only in proportion to their liability to the pulmonary form of the disease. And yet from deductions from some experiments it would seem that clerks and bookkeepers show that some varieties of sedentary occupations do predispose to the disease. However the effect of harmful occupations is probably much less than is usually expected, and especially so since those tied up to the sedentary work in these years spend more of their off time in open-air recreation.

Simple acute laryngitis does not necessarily predispose to the tubercular form, excepting in those cases which do not receive proper treatment. But *chronic* laryngitis does exert its influence in favor of the secondary infection by the tubercle bacillus through weakening the resisting power of the epithelium and the function of its glandular elements.

Of other diseases which predispose to tubercular laryngitis by reducing the general resistance of the individual, lues probably ranks foremost. I have seen a number of cases of complicated laryngeal condition from these two diseases.

The pathology of laryngeal tuberculosis is quite distinct, and yet it is sometimes difficult of recognition macroscopically, and especially so if complicating lues or carcinoma. Mistakes have been made in confusing tuberculosis, lues, and carcinoma of the larynx in which there was no complication. A careful consideration of the differential diagnostic symptoms will aid materially in avoiding this mistake. These differential symptoms will be given later.

The tubercular process in the larynx manifests itself in four characteristic forms: Infiltration; ulceration; tuberculoma; miliary tubercle. Infiltration is usually the earliest visible manifestation of the disease and may persist for a long time without ulceration. It appears principally in the arytenoid cartilages, the aryteno-epiglottidean folds, the posterior wall, and the vocal cords. The epiglottis may become much infiltrated, but such infiltration is usually accompanied by ulceration. Swelling of the epiglottis is usually a sign that ulceration is proceeding on its under-surface, and swelling of the ventricular bands is usually due to ulceration in the ventricles, but

swelling in either condition may be the result of perichondritis.

The microscopical appearance of this infiltration is that of tubercular infiltration in other organs—varying amounts of small round cells, young and old fibrous tissue, scattered tubercles in different stages of development with accompanying giant cells.

Ulceration, mentioned above as the second form or stage in this pathological process, is caused by the breaking down of minute areas of tissue which extend by coalescence. These ulcers at first are superficial, but they slowly become deep. This is in contradistinction to the ulceration of tertiary lues which results from the breaking down of comparatively large masses of tissue and usually deep from the onset. Ulcers may be found in any part of the larynx, but are most prevalent in the posterior commissure, near the vocal processes, and on the cords. These ulcers have a characteristic wavy irregular edge, and often show projections which by the indirect method of examination have a papillomatous appearance. The outline of the ulcer is typically ill-defined in contrast with the more or less sharp outline of the luetic ulcer. The general appearance of the ulcer is soft, another differential characteristic. The base of the ulcer is often covered by a soft yellow detritus, mottled and granular. Frequently these granulations become exuberant and project into the larynx like a tumor.

The tuberculoma, the third form of the pathological process previously mentioned, is not so common in laryngeal conditions. This is a warty outgrowth usually found in the posterior commissure. It has the microscopical appearance of a papilloma, but a few giant cells can usually be found at the base of the tumor.

The miliary tubercle, the fourth form of the pathological process, occurs in combination with infiltration and around the edges of ulcers. Clinically these tubercles are seldom observed. They are minute and are whitish, gray, or yellowish in color, and are thought by some to be more prevalent as a reaction of tuberculin treatment. There are other small yellow points around tubercular ulcers which are more easily seen. These are small superficial abscesses due to secondary pyogenic infection.

Among the pathological changes in *special* tissues, the epithelium is but slightly affected until ulceration occurs, even when there is much deposit beneath it. The principal part of the infiltration is

in the mucosa and the submucosa. The muscles are less frequently infiltrated, though waxy and fatty degenerations have been found, and dysphagia may be due to muscle infiltration.

While chondritis and perichondritis are rather frequent as previously inferred, the more common pathology of the arytenoid cartilages is the deep extension of the disease from the sub-mucosa aided by mixed infection of pyogenic cocci after the mucous membrane has ulcerated. Ulcers forming near the vocal processes are especially apt to be followed by perichondritis of the arytenoids because the sub-mucosa here is thin. The perichondrium is inflamed and loosened and even separated from the underlying cartilage by pus formation, and these pus-pockets, too, usually rupture near the vocal processes. In cases of thyroid perichondritis the swelling and rupture may take place inward toward the lumen of the larynx, or outward into the tissues of the neck. Cricoid perichondritis causes subglottic swelling, and the resulting abscess may spread forward into the neck or backward into the pharynx. Necrosis of the cartilages may occur in any of the abscess formations.

The lymphatic glands are rarely involved secondarily to laryngeal tuberculosis, but in cases of tubercular lesions of the mouth, pharynx, and nose, infection of the glands is common. The lymphatics of the larynx drain chiefly into the glands of the upper deep cervical at the level of the bifurcation of the common carotid artery.

Loss of function of the vocal cords due to the action of pathological lesions affecting special tissues in the larynx is under question. Ankylosis of the crico-arytenoid articulation, however, produces immobility of the cartilages and thus of the vocal cords. The arytenoid in such cases is usually fixed in the cadaveric position, but may be either abducted or adducted. In addition to this fixation, luxation of the cartilages forward may occur, and the corresponding cords completely relaxed, and marked deformity results.

To what extent the enervation of the larynx is affected by local tuberculous lesions is another open question. Is it possible that the involvement of the nerves may explain those cases of severe dysphagia in which there is no ulceration? May not the recurrent laryngeal nerves also be involved in their course to the larynx by enlarged bronchial or tracheal glands, or by tubercular disease at the apices of the

pleurae? And if these nerves are thus involved, what may be the effect on the mobility of the cords?

Since the recognition of a disease is of primary importance both as to the treatment of that particular patient and the protection of others, the earlier a positive diagnosis can be made the better for patient and community and reputation of the attending physician. The diagnosis of laryngeal tuberculosis, in the same measure as the diagnosis of any other disease, is the sum total of the information obtained from the history, the symptomatology, and the presenting pathology; and is simple in typical cases. In certain incipient lesions, however, and in atypical cases without constitutional or demonstrable pulmonary manifestations, and in uncommon mixed types, ever diagnosis may be exceedingly difficult, and is sometimes missed by the best clinicians. An accurate history may sometimes contain the convincing evidence in the summing up of the case for the final diagnosis.

In the foregoing discussion of the pathology of this disease allusion was made to certain characteristic symptoms as being of prime importance in differentiating tuberculosis, lues, and carcinoma of the larynx the three conditions most liable to be confused. It is well to understand, however, that neither tuberculous infiltrate nor ulcer has any *absolutely* distinctive characteristics aside from the presence of military tubercles; and while certain types of this condition are considered almost pathognomonic, atypical lesions of other diseases sometimes show the same peculiarities in these same structures. For example, pyriform swellings of the arytenoids usually mean laryngeal tuberculosis, yet a similar appearance is sometimes the result of a unilateral gumma or a bilateral edema of nephritis. The turban-shaped epiglottis may be the result of tubercular infection, or of the perichondritis of syphilis. The irregular projections of the interarytenoid sulcus are occasionally caused by epithelioma or pachydermia laryngis. The characteristic symptoms of tubercular laryngitis are, in the main, subjective, and hence closely allied with the history of the case. When infiltration of the interarytenoid sulcus, the most typical of the early lesions, either associated with or independent of congestion of the vocal cords, is found in a patient with a frank pulmonary lesion, it is safe to be considered pathognomonic; but when it occurs in a patient otherwise apparently normal, simple catarrhal hypertrophy, pachy-

dermia, malignancy, and lues must be considered; and in the differentiation of these conditions, the following symptomatology, fortified by a dependable history, is usually reliable.

Subjectively—phonation; deglutition; respiration. Objectively—liability of different parts of the larynx to infection, with differentiating characteristics of confusing diseases; systemic manifestations; laboratory and therapeutic tests; biopsy.

As a fair estimate only about *ten per cent* of all cases of laryngeal tuberculosis escape some affection of the voice. Huskiness, or simple voice fatigue, may be, and often is, due to the adhesion of tenaceous mucus to the cords. This condition can be easily recognized by indirect examination with the laryngeal mirror. Huskiness may also be due to moderate nodal lesions, to lack of tension of the cords, or to some mechanical interference such as swelling of the arytenoids.

Hoarseness is the result of grosser lesions and is quite pathognomonic of this disease, and also of lues and malignancy of the larynx. The typical tuberculous voice is weak, dull, muffled, high pitched, and inflexible, progressing gradually to more or less complete aphonia. The voice of laryngeal lues is hoarse, low pitched, brassy, and non-tiring. Malignancy of the larynx tends to produce a high pitched, but soft voice.

While these voice types are true in a general way, it must be remembered that they all may depart from the typical and assume the characteristics of each other. Some clinicians of wide experience claim that no inference can be drawn from the voice as to the extent or nature of the local lesions. Nor is the voice an infallible index of the response to treatment. Complete cure may result with permanent hoarseness due to distorted cords, or with aphonia from ankylosis or recurrent paralysis. The voice may be regained while lesions spread to other parts of the larynx.

In advanced systemic tuberculosis the general weakness of the patient intensifies the hoarseness, even to aphonia, though aphonia usually indicates more advanced lesions. Functional aphonia is rather common in female consumptives. The laryngoscopic appearance is that of paresis of the adductors or internal tensors of the cords, the larynx often remaining free from any frank lesion. Persistent functional aphonia associated with debility should suggest the

advisability of a careful examination of the lungs.

Sudden and frequent variations in the pitch of the voice, like that of a boy at puberty, is due to some small nodal thickening of the cord acting as a stop or damper. These voice variations are also observed in syphilis, but less frequently.

Continued hoarseness without other known cause, and especially if accompanied with sudden sharp pains in the larynx, pharynx, or ear, and the laryngeal tissues a beefy red, should suggest malignancy; while ulceration, rapid, clean-cut and deep, pain usually light edema not marked, laryngeal tissues a purplish hue, would suggest lues of the larynx.

Difficulty in swallowing is a symptom of grave import. The patient, weakened by constitutional condition and broken rest, is inclined to stop short of the necessary intake of food, but add to this dysphagia, and semi-starvation hastens the end. In lesions of the epiglottis the difficulty is at first with solid foods, and in arytenoid lesions the difficulty is often most marked in swallowing fluids.

Cough is present in about 85 per cent of the cases. In many it is due to the pulmonary condition, or to an independent affection of the pharynx, but it may be the result of increased irritability of the larynx. It is harmful by causing loss of rest.

Dyspnea of laryngeal origin is not so common as might be expected, though it does quite frequently occur. Shortness of breath from general debility and disease of the lungs is common. True laryngeal dyspnea is distinguished by its obstructive character, and when severe is accompanied by stridor, the stridor and obstruction being pronounced only during inspiration. The dyspnea is usually caused by extensive infiltration, especially of the arytenoids and the aryteno-epiglottidean folds. More rarely is it due to granulations and wart-like growths filling the lumen, or to fixation of the arytenoids in the adducted position, or to paralysis of the abductors.

As general subjective symptoms the patient may complain of a lump in the throat, or dryness, or pain independent of swallowing. It is my experience that any paresthesia of the throat is suggestive of early laryngeal tuberculosis. Pain, in common with malignancy of the larynx, may be referred to the palate or the ear through the auricular branch of the vagus.

Expectoration and hemorrhage are rather

due to disease of the lungs and the bronchi than to the larynx.

The laryngeal disease, aside from the lung condition, may cause a temperature. In complicated cases it is difficult to decide how much of the fever is due to the laryngeal and how much to the pulmonary condition, and this is a point of importance when considering the advisability of surgical treatment.

Many of the slighter laryngeal cases have no subjective local symptoms whatever, and it is of great importance for early laryngeal treatment that all cases of chronic tuberculosis be examined frequently with the laryngoscope as a routine, and it is this routine laryngeal examination that puts the physician in touch with the objective symptoms in order and frequency of occurrence. It is quite universally accepted that the posterior portion of the larynx is more frequently involved in this disease than is the anterior, while syphilis more frequently attacks the anterior. Exceptions to this rule are somewhat frequent if the lesions of the epiglottis are considered, but in lesions of the cords it is quite constant. Isolated tubercular ulcers are rare on the anterior part of the cords. One is struck with the frequency with which the arytenoid region is involved in this diseased process, and as previously stated, the explanation of this seems to be that the sputum passes principally over the posterior half of the larynx. The same explanation holds for the fact that the epiglottis is more frequently infected on its edges and posterior aspect. The relative frequency with which the areas of infection proceed to ulceration in the vocal cords, the ventricular bands, the epiglottis, the inter-arytenoid sulcus, and least often the arytenoid cartilages.

The sub-mucous tissues are comparatively plentiful in the aryteno-epiglottidean folds, and infiltration reaches its greatest extent here. These parts can swell freely and so may attain extreme size without ulceration. The infiltration is bilateral, but one side may be affected more than the other. Small swellings in this region are oval, but large swellings are pyriform, which are characteristic. These swellings may meet in the middle line, push backward into the pharynx, or forward to and include the epiglottis and thus may occlude the aperture and obstruct deglutition and respiration and make tracheotomy imperative.

The ventricular bands may be greatly enlarged by infiltration, or their swellings may be due to ulceration within the ven-

tricles or perichondritis of the thyroid cartilages. A gaping of the mouth of the ventricle, often spoken of as "Prolapse of the ventricle," may be seen at times. This prolapse, or rather swelling of the ventricular band, may totally obscure the true cord.

On making an examination of the larynx with the mirror, if the epiglottis appears thick, red, overhangs the larynx, and is raised with difficulty on phonation, it is well to be suspicious of ulceration on its dorsal surface.

Points of objective differences: In simple catarrhal infiltration of laryngeal tissues cauterization usually produces prompt recession. Microscopic examination alone can be trusted to differentiate pachydermia. New growths of the posterior are extremely rare, but here again the microscope is the only safe agent of differentiation. In syphilis the therapeutic test is of value. Unilateral lesions exclude simple inflammation, and if associated with pulmonary lesions, and especially of the corresponding side, the diagnosis is usually considered reliable. Early paralysis means tuberculosis or malignancy. Ulcers of the epiglottis limited to the tip and the laryngeal surface are usually tuberculosis, while suppurative ulcers show preference for the free edges and the lingual surface. Complete destruction of the epiglottis is more common in syphilis. Luetic ulcers of the cords are more frequently anterior, more clean-cut and deeper, more rapid in formation, but less copious in muco-purulent secretion. It is well to remember, however, that a combination of these lesions may be present in the larynx at the same time, and it is then that the ingenuity of the diagnostician is a good asset.

In summing up for a diagnosis the history and symptomatology are sufficient in many cases, but in obscure and complicated cases all possible information may be required. Snap-shot diagnoses are unsafe. A routine method of arriving at a permanent diagnosis is commendable, and I suggest the following: A careful analysis of history and subjective symptoms; a careful examination of nose, pharynx, larynx and lungs for local objective symptoms; examination of lymph glands; sputum, Wassermann, and therapeutic tests; and if necessary and advisable, biopsy.

And now for the treatment. It is a well known fact among medical men that in the last stages of tuberculosis the treatment is palliative for the patient and protective for

the community with the emphasis on the protection. This is undoubtedly correct, and yet, as busy men trying to keep in touch with the expansion of our profession and the contraction of the revenue therefrom, may we not be too prone to classify the patient as being in the last stage of the disease and content ourselves with prescribing the accustomed treatment? That marked improvement with prolongation of life, and in many cases even cures, have resulted from painstaking care on the part of the physician and the personal attendants of those who were thought to be in the last stage of the disease must be conceded. The first thing, then, in the care of one of these cases is not only a diagnosis of the disease, but a careful and well formulated idea of the exact condition of that particular patient.

Palliative treatment of those beyond the hope of amelioration or recovery is simply a matter of making them as comfortable as possible and providing the proper protection for family and friends. Fresh air and proper diet should not, of course, be denied these patients. The use of drugs and other measures for the control of cough, dyspnea, and pain rests largely with the attending physician. Anodyne drugs may be applied to the larynx in the form of sprays, pigments, or insufflations. They are usually best employed by the medical attendant, the instrument of application being guided by the mirror. A well trained nurse, and in some cases relatives or friends of the patient, may be entrusted with such medication.

Orthoform locally is probably the most valuable for the control of dysphagia, though morphine and cocaine are used. Menthol, bismuth, orthoform, heroin, and codein in the form of lozenge or linctus are among the best for the control of cough. A mild alkaline spray may be used for cleansing the larynx of tenacious mucous debris, but is less effectual than the cotton or wool wound applicator. The larynx should always be treated with some sedative following the use of cleansing sprays or mops.

Steam inhalations, or inhalations impregnated with some medicament are of value in palliative treatment of the larynx and also of associated nasal and pharyngeal condition.

When all other palliative measures fail, one fifth of one per cent cocaine in alcohol may be injected into the superior laryngeal nerve to control pain.

Treatment in the earlier stages of the disease should be more energetic and unremitting, for it is then that there is more expectation of a cure. In addition to proper hygienic and systemic treatment more special attention should be given to local conditions. To relieve laryngeal symptoms and aid in a cure, it is important that the larynx should have complete rest. In some cases the use of the voice should be forbidden altogether, remembering that a loud whisper is as great a strain on the larynx as is a low voice.

As is generally known, attempts at specific treatment of tuberculosis with tuberculin and serum-therapy have failed. And not only have they failed so far as laryngeal conditions are concerned, but in the main the laryngeal conditions have been made worse. The effect of such injections was to cause an increased reaction and necrosis around the focus of infection. Unfortunately the bacilli were not killed, and the resulting necrosis simply opened up fresh tissue to infection.

Local treatment of the larynx includes drugs applied to the affected parts, and surgical interference. Among the most important drugs thus employed are lactic acid, phenol, ereosote, guaiacol, menthol, iodine, and chaulmoogra oil. Lactic acid has the history of long usage, and is used in twenty to forty and fifty per cent of the pharmacopoeal strength, and in some tolerant throats the pharmacopoeal strength, about 75 per cent of the pure acid, may be used. Applications are usually made about once a week, but may be made oftener with the milder solutions, depending, of course, upon the reactions obtained. The application causes pain which may be intense and may last for several hours. The pain is often lessened by the insufflation of orthoform immediately following the application of the acid. Lake's mixture is composed of lactic acid 50 per cent, formalin 7 per cent, phenol 10 per cent, and water q. s. 100 per cent.

Formalin in 1 to 10 per cent of the commercial product has been used by Solis Cohen.

Menthol in 10 to 20 per cent strength in an oily medium has been used quite extensively, so also has iodine in 10 per cent strength in a similar medium.

Chaulmoogra oil at the present time is enjoying almost universal usage for local application, and in some cases is given internally. Those who have used it seem to think it does some good. It is applied

locally with an applicator or laryngeal syringe in 50 per cent to full strength.

Conditions of the larynx, together with pulmonary and general systemic conditions, have a large influence as to choice of local treatment of the larynx. In making this choice it is necessary to keep the object of the treatment clearly in mind. Is this object to completely cure the patient, to cure the laryngeal disease, or simply to relieve suffering? As a curative measure of laryngeal conditions various forms of surgery have been used with more or less success, depending upon the pathological condition and the surgical procedure. Of these surgical procedures, only two or three of the most successful will be mentioned. In cases of primary, and apparently primary laryngeal lesions, and in cases in which the disease in the lungs is in an early stage and is not advancing rapidly and the general health is good, and in cases which show a tendency to become stationary or to improve, judicious surgical measures are undoubtedly the best form of treatment for the laryngeal condition.

Local anesthesia is practically always necessary, if for no other purpose than to obtain immobility of the larynx, and for this purpose the fauces must be anesthetized as well. Cocaine is the anaesthetic of choice. In very irritable cases it may be applied in the form of a fine spray, or it may be allowed to trickle over the epiglottis from a drop-syringe. Ten per cent is usually sufficient, though in some cases an additional application of a little 20 per cent solution may be of great advantage. It is stated by some that the effectiveness of the cocaine is increased by the addition of 2 per cent sodium sulphate, and thus weaker solutions of cocaine may be used.

The thorough removal of growths from the inter-arytenoid space is usually quite satisfactory, so also is the curetting of ulcers in this locality. In the aryteno-epiglottidean folds, no matter how extensive the swelling, operative procedure may be undertaken with a fair prospect of success, free removal and as much as possible at the time being indicated. Curetting deep ulcers of the ventricular bands and the removal of the infiltrated base with cutting forceps is usually attended with good results, but the free use of the cutting-forceps in this locality is often attended by severe bleeding, and hence the galvano-cautery is the safer instrument. The vocal cords require less operative treatment than any other region of the larynx, the chief indica-

tions being the curetting of ulcers or the removal of small excrecences.

Surgical interference with the epiglottis is a somewhat different proposition, for it is usually attacked late in the disease, and there are then more or less systemic complications. The removal of the epiglottis, however, in cases suffering severely from dysphagia, is often of value. The punch forceps or the galvano-cautery snare is the instrument of choice for this work, and it is usually best to remove the entire epiglottis in toto.

Sub-glottic swellings may be removed through the glottic route or through an incision in the trachea, depending largely upon the mass to be removed, the condition of the patient, and the dexterity of the operator.

The use of the galvano-cautery is practical in all of these conditions, and it seems to be gaining favor with the leading laryngologists. Deep ulcerations with a good deal of accompanying detritus, and areas of deep infiltration are alike amendable to this form of treatment. Edema rarely follows the use of the cautery, and is always moderate when it does occur.

It must be borne in mind that in all pathological conditions of the larynx tracheotomy may become imperative on short notice, and when indicated it should be done without hesitation. It is obvious in laryngeal conditions a high tracheotomy should never be done.

As to prognosis we will not attempt to deny that all cases of tuberculosis are more or less grave, but among medical men who are keeping in touch with progress, the prognosis of this disease, and especially its laryngeal phase, is far more encouraging than it was ten years ago. Complicated with pregnancy, laryngeal tuberculosis almost invariably runs a rapid and fatal course; and next to pregnancy, lues gives greatest concern. If the tuberculous condition is in its incipency healing may result, but when the lesions are advanced, even if the luetic manifestations are brought under control, the tuberculosis advances rapidly.

Much of the increased hope in the treatment of laryngeal tuberculosis is due, of course, to the advancement made in the treatment of the pulmonary and general forms of the disease, but it must also be remembered that the skillful use of the laryngeal mirror in the hands of those trained to interpret the findings is also a factor in the prognosis of the disease both locally and systemically.

The Surgical Evaluation of Abdominal-Pain

BY H. C. EMBY, Great Bend

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

Abdominal-pain, be it moderate or severe, arrests the attention of the surgeon, and requires that he determine whether or no, it is of surgical significance.

While we admit that pain in the abdomen is many times a striking symptom, yet we realize that pain itself does not furnish the information necessary to clinch accurate conclusions concerning it. It is the collateral symptoms associated with it, that supply the information needed for its proper evaluation.

At best abdominal-pain is only one link in the chain of evidence which justifies the surgeon in operating. In all fairness we must remember that pain is the chief defense mechanism against injury. Unfortunately it is often peculiarly meager, many times greatly amplified, frequently mis-leading, and occasionally perplexingly silent. The Stoic minimizes his actual pain. The Neurotic magnifies his. For instance a patient who's sympathetic system is out of order, and who has so-called nervous-indigestion, may complain more bitterly than an ordinary individual who has a real pathological entity like a gastric-ulcer.

While pain has been spoken of as the language of disease, many of us have learned to our sorrow that it is also the greatest liar in the clinical world. We have learned that certain types of even severe abdominal-pain may depend upon an abdominal personality, rather than an organic abnormality. We have become suspicious of abdominal-pain complained of by the neurotic. For instance, the constant burning pain over the right iliac-fossa, which has been diagnosed chronic appendicitis, and operated upon, often returns with the self same pain unrelieved.

A case that has never suffered a bona-fide acute attack is perhaps not surgical. Unfortunately the complications of many diseases obscure the initial-pain. It is well to keep this in mind when taking the patient's history, what happened at the very on-set of the first attack? Was it frank pain or some other symptom? Because it is the relative significance of abdominal-pain associated with certain definite symptoms that we must take into account. Disaster may follow our failure to appreciate its importance, when it is associated with definite symptoms indicative of its seriousness. Unnecessary exploration may result from over estimation of its value when

essential collateral symptoms are lacking.

Fortunately for us, there are a number of fairly constant symptoms, associated with abdominal-pain of surgical portent which help to keep us from error.

The tongue may lie, it frequently does, but the face seldom if ever. Among the essential truths that the face enunciates in association with surgical abdominal-pain, are the waxy pallid face of concealed hemorrhage; the ashen-face of shock; and the dusky cyanosis of acute infection.

Other reliable symptoms are tenderness, rigidity and temperature. These symptoms checked by a frequent leukocyte-count will usually complete the syndrome of evidence required by the surgeon. The value of a frequent leukocyte-count, cannot be over estimated in cases of severe abdominal-pain. In this connection it is well to remember that in gastric or duodenal ulcer, and also in intestinal obstruction, there is no leukocytosis; but these conditions have a symptomatology of their own, as is also the case in typhoid fever in which we often find a leukopenia.

Pains in the abdomen are not all due to visceral disease. Deaver very aptly refers to the abdomen as a sort of loud-speaker for many extra abdominal disorders. It is a well known fact that pleurisy, pneumonia, pulmonary tuberculosis, endocarditis, cerebrospinal syphilis, and a number of other diseases may be ushered in with abdominal symptoms.

Tuberculosis of the spine causing pressure on a spinal nerve can produce pain over the abdomen which might deceive one.

The gastric crises of tabes dorsalis may be responsible for severe epi-gastric pain accompanied by vomiting and collapse. But the eyes will show Argyll-Robertson pupils, knee-jerks are lost leukocytosis, never, abdominal tenderness, and rigidity are not present.

Dietl's crises, may be mistaken for appendicitis because of the pain, tenderness and vomiting. However there is no fever and no leukocytosis.

Renal colic is accompanied by pain and vomiting, and sometimes tenderness; there is also bloody urine; and if it occurs on the right side, we must remember that when the appendix dips down into the pelvis in contact with the bladder, that appendicitis may produce bloody urine. But in renal colic, there is no fever and no leukocytosis.

The toxemia of pregnancy is sometimes accompanied by severe epigastric pain, it is a possibility in cases associated with preg-

nancy. However the urine usually contains albumin.

Acute gastritis and enteritis is accompanied by fever and tenderness over the abdomen, but the pain and tenderness is diffuse, there is no leukocytosis.

Visceroptosis presents many confusing symptoms to the surgeon; I feel that I have erred frequently in its presence, and I opine that I am not alone in such error. Visceroptosis may simulate cholelithiasis, cholecystitis or cholangitis by local pain, even by distress and distention of the gall-bladder and jaundice. The latter caused by kinking of the cystic and common ducts. The degree of actual ptosis in slender individuals of poor body posture is seldom appreciated when they are lying flat upon the operating table. X-ray observation with barium meal in the standing position will often reveal noteworthy information, since most people spend half their lives standing on one end; the value of x-ray in this instance is well worthy of notice.

Ptosis may simulate gastric-ulcer, but lacks the systemic regularity of hunger pain; food ease; and night pain relieved by vomiting or alkalies which caused Moynihan to conclude that gastric or duodenal-ulcer could be diagnosed by correspondence. Vague pains of ptosis may simulate stomach cancer. But examination of the stomach contents and the x-ray will usually clear up the question.

Cecum-mobile will occasionally mimic appendicitis by pain and local tenderness. But fever and leukocytosis are not present in cecum-mobile.

Hysteria of certain types may simulate an acute abdominal lesion. However, in these cases superficial tenderness produced by slight pressure is as great as tenderness produced by deep pressure; this rather definite finding promptly causes us to think of hysteria or some nervous phenomenon; fever and leukocytosis will be lacking, and usually there are other symptoms of nervousness which will help to put us right.

Angina pectoris may cause epigastric pain like that produced in some types of gall-bladder disease or beginning appendicitis. It is well to remember that the pain of angina-pectoris is not always in the region of the heart, and it does not always radiate to the arms. But fever, leukocytosis and tenderness are lacking.

Acute perforation of the stomach or duodenum, may be attended with collapse, quickly followed by localization of infectious material in the right iliac-fossa. A

careful history of the on-set will oft-times prevent us from making a diagnosis of appendicitis, which this condition so greatly simulates a few hours before perforation. The well known epigastric pain of appendicitis localizing itself in the right iliac-fossa is very uniform and familiar, when the appendix is in its usual position to the inner side of the cecum. However, when the appendix is situated behind the cecum the mild unREFERRED pain will allow grave supuration to supervene before it will challenge recognition.

Abdominal-pain in children with beginning pneumonia, where the diaphragmatic plura is involved, will seriously mimic appendicitis, if other clinical evidence and a careful history of the on-set are not properly considered. On the other hand I believe we have many sins to answer for in the name of so called acute-indigestion. Of one thing be assured, that abdominal-pain accompanied by persistent fever, tenderness, rigidity, and leukocytosis, is certainly not acute indigestion. If we will look well for the essential collateral symptoms when we are confronted with a case of abdominal-pain we may escape the error of classing a dangerous surgical case as a slight illness and vise-versa.

Pain in the right side of the abdomen does not necessarily mean appendicitis; when a patient turns easily from side to side without complaint there is no acute lesion in the abdomen. In disease of the female pelvis one is often confused by vague pains and symptoms of indigestion, nausea, vomiting, belching, etc., so that a pelvic examination is nearly always in order. Rectal examination likewise should be a part of the routine in both sexes.

If we are careful to correlate the essentials in our effort to evaluate abdominal-pain, we will seldom go astray. A careful history of the on-set is of the utmost value. Inspection of the abdomen with the patient lying flat on the back will reveal prominence or depressions and the contour of the two sides. The patient can be instructed to breath deeply, and cough, which will reveal free movement, restricted movement, or absence of movement of the abdominal wall with respiration. This maneuver will frequently cause the patient to indicate the point of exquisite tenderness with his own hand. Palpation quickly determines the presence or absence of tenderness rigidity, or tumors, and also determines the point of definite tenderness. Percussion is also essential to the surgeon, shifting the pati-

ent into different positions during its application will give the best results.

Auscultation serves its most useful purpose in determining the different varieties of peritonitis and the time of election for operation, and is not within the scope of this paper. The expression of the face, tenderness, rigidity and fever are the outstanding guide posts which will help us most in the surgical evaluation of abdominal-pain.

Clinical wisdom is a matter of experience and close observation. Intuition is a gift, possessed perhaps by few. But a careful study of the patient's face with a relentless search for tenderness, rigidity and temperature is within the power of any man, any time, under any circumstance.

R

Report of Use of Ether Intramuscularly In Pertussis

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After a season of much pertussis in this locality, it is thought that a review of the results obtained by the use of ether intramuscularly, for the relief of gastric disturbances and bronchial symptoms in this troublesome infection of childhood, will be worth while.

No statistics are submitted in the way of figures or percentages, as positive results were readily obtained, and improvement noted immediately after the first dose, in all cases except two. These failures were subsequently and satisfactorily accounted for, with no fault as to choice of treatment.

Thirty-eight cases of pertussis were treated from March 8, to July 3, 1924. Nausea and vomiting abated to considerable degree, after the first injection, in all cases except the above mentioned. No case required more than four injections to completely abate cough and restore tolerance of food; all cases began at once to build up in strength, which is somewhat of an improvement over any former treatment which has been brought to notice. Nothing was given concurrently with the ether treatment. No treatment other than ether was used in any case after the first injection. No other treatment was needed, which supports the supposition that ether treatment must be credited with the marked and rapid improvement.

The cause of failure in the two cases mentioned, was due to the use of ether in the stale form, from a can which had been opened and recorked about six days before; there was no improvement in the cases thus

treated; however, one of these cases was re-treated later with fresh ether, with full control of cough and nausea in short order. The other failure was improved some by the time the reason for failure was explained, and retreatment was unnecessary.

As the technic of administration is all important in getting the best of results, some of the details follow: A dose is given every second or third day, second preferred, until results are as desired. The use of a long intramuscular needle is advised. One-half to two-thirds c.c. of fresh ether in infants under one year, 1 c.c. up to six years, and 2 c.c. over six years, is injected into the buttock muscles, nearer the crest of the ilium than the major trochanter, and the site should previously have been lightly massaged with equal parts ether and alcohol for anesthetic effect. After the injection is made, finger should be held over puncture for 30 seconds to prevent escape of fluid. Site should again be massaged for a few minutes to prevent soreness.

Ether was injected in the case of a boy of 7 years, during the onset of measles, with temperature of 102.5. The result was a sharp rise in temperature, with more than the slight amount of cyanosis about the mouth and face, ordinarily had. This injection had no visible effect on the pertussis cough, possibly on account of the co-existing measles cough. From this experience one would suppose that the use of ether in a parallel case would not be advisable.

It has been noticed in the treatment of this series of cases, that a child or adult, who has had an ether anesthetic prior to ether treatment, will exhibit a greater degree of narcosis from the intramuscular administration, than will those who have had no ether anesthetic previously. This furnishes a nice example of stomach memory.

All in all, the results lack nothing in being specific, and seem to obviate complications entirely, which should cut the 6 per cent mortality to no mortality at all.

Literature has mentioned the use of ether in this manner in the treatment of bronchopneumonia complicating pertussis, with the same excellent results, but in this group of cases there were no complications, which is an eminent fact, and one worthy of mention.

At first ether was used with an uncertainty as to its freshness, until failure was had from the use of a stale product, in the two cases referred to, and from then on Lillys' 5 minim globule was used, which cannot be excelled from a standpoint of freshness and economy. This product was

procured in bottles of 100, at a nominal price.

CONCLUSIONS

(1) Ether, intramuscularly in pertussis, is more efficient than any other agent used up to now.

(2) Its administration is safe.

(3) This treatment of a series of cases numbering 38, with no complications whatever, is evidently more or less of a step forward in the therapy of this common disease of childhood, which has been in the past, almost impossible to treat with satisfaction.

(4) Ether must be fresh, and the technic, finger over puncture, and massage before and after injection, are all of great importance.

— R —

Lymphatocostomy—A Preliminary Report

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Lymphatocostomy, or ligation and drainage of the thoracic duct, while a new procedure, is one I believe well worth our consideration. Any surgery connected with the thoracic duct has long been considered as extremely dangerous, and this time honored belief will have to be disproved before any great strides can be made in this type of surgery.

If it can be shown that a lymphatocostomy is comparatively safe, and can be done with little shock to the patient, it should prove an efficient weapon in combating general peritonitis, puerperal sepsis, and toxemia from intestinal obstruction.

Since the thoracic duct is an important structure, the question naturally rises as to what is the fate of the duct and the patient after ligation and drainage. Since the discovery of the lymphatic system by Asellius in 1627 considerable experimental work has been done on the thoracic duct. This work has been done on cattle, horses, dogs, and cats, with a wide difference in opinion as to the results. Some have claimed that the cisterna chyli ruptured with the ligation of the duct with an extravasation of chyle into the peritoneal cavity. Other experimenters believed that animals died from deprivation of the nourishment furnished by the duct. Later investigators noted that an animal with the duct ligated, not only lived, but gained in weight and seemed to be in perfect health. From the fact that some of the older workers state that "perfect supuration" took place in their cases, we may safely conclude that at least some of their animals died of infection.

During the past few decades little interest has been manifested in the thoracic duct except from the standpoint of the surgical procedure in case of accidental injury. The old fear of tampering with this structure is however, not to be found in modern texts. Warbasse states, "Some surgeons regard immediate ligation as the operation of choice in case of severing the duct." Da Costa says, "It was long believed that wounds of the thoracic duct were almost certainly fatal. It is now known that injuries of the duct at the base of the neck are rarely very dangerous unless the duct be divided close to the vein." The general belief seems to be, that after ligation the work of the duct is gradually taken over by anastomosing branches.

It is on the assumption that the thoracic duct ligation is not a dangerous procedure per se, that duct ligation and drainage has been attempted in acute septic conditions of the abdomen. Dr. W. A. Costain of Toronto, Canada, started about two years ago on this work. His striking results interested me and have formed the basis of my surgery on dogs.

Before any accurate deductions could be drawn as to the value of a lymphatocostomy in peritonitis, a lethal dose of bacteria had to be determined. In other words something had to be done that would kill a dog every time. In our work we ligated the appendix and mesoappendix in a series of seven dogs and produced a peritonitis which was invariably fatal. Death occurred from thirty to ninety hours after operation. No dog lived over forty-eight hours except one that established abdominal drainage. The average time of death was about forty-eight hours.

Necropsy showed that these dogs had died of a rapidly progressing peritonitis from a ruptured or gangrenous appendix. Cultures on blood agar showed colon bacillus predominating. In one case haemolytic streptococci and haemolytic staphylococci were found. The cultures from the heart blood were found positive in three cases.

With this series of dogs as controls, a second series of seven dogs was run. The peritonitis in this series was produced in exactly the same manner as the first, but in this series a lymphatocostomy was done in an attempt to save the dog's life. Five in this series recovered and two died. Of the two that died neither established drainage from the thoracic duct operation. One

lived fifty-six hours and the other one hundred and sixteen.

TECHNIQUE

These dogs were all operated under strict surgical asepsis. The field was shaved and cleaned with soap and water, benzine, and iodine, and draped with sterile sheets. A right rectus incision was used in the appendix operation. The appendix and the mesoappendix were ligated with four strands of plain number two catgut and the abdomen closed with three lines of suture in all cases.

In the neck operation the incision was about four inches long on the posterior border of the left sterno-mastoid muscle. A blunt dissection was then carried down to the carotid sheath. This dissection can be done rapidly as there are no important structures to be injured and no bleeding. At this point if the duct was filled it could be seen gleaming white through the fascia planes in the deep distal end of the incision. It was then readily dissected out and ligated. If a peritonitis had been produced twenty-four hours previously, as was the case in most of my dissections, the duct was found collapsed and the dissection was rendered more difficult. The jugular vein was dissected out by blunt dissection down to its junction with the subclavian. Here the duct is found arching upward from the thoracic cavity and emptying somewhere near the junction of these two veins. It is about the size of number two catgut when empty and approximately the size of a match when filled. When a structure was found that was thought to be the duct it was gently pinched with a forceps and thus tested for distention. The duct when thus closed slowly distended with fluid and the dissection was then carried farther toward the thoracic cavity. It was then ligated with number two catgut after the method of Costain and split with a small pair of scissors for a distance of one inch. The field about the duct was lightly packed with strips of rubber dam which with the long ends of the ligature were brought to the surface and sewed to the skin. A rubber tube wrapped in gauze was likewise carried down to the site of the duct and also sewed to the skin. The skin incision was loosely closed with metal skin clips and a collodion dressing applied. Four of the lymphatocostomies were done under local anaesthetic with very satisfactory results. One half of one per cent procaine was used without the aid of morphine.

DISCUSSION

Peritonitis has long been a condition in which the surgeon has had little to offer and where a "hands off" policy has been almost universally accepted. Doederlein states that, "The classification of pelvic infection into ascending and descending types is not merely academic but of practical value for analysis of cases, especially in regard to prognosis."

He continues by saying that abdominal operations in the ascending type without localization are out of the question. Williams in speaking of puerperal sepsis, last fall in Kansas City, advises us not to get it. When it does occur he states that both he and De Lee use the same treatment: that is they both pray for them with some slight variation in the prayers. This information, while it is perhaps as good as any one has had to offer, is not altogether satisfying to the man that has a case on his hands. It harks back to medicine of the middle ages.

In toxemia from intestinal obstruction and strangulated hernia we have again a similar condition. We may relieve the obstruction or strangulation, but the patient often goes on and dies of the toxemia. Costain states that "Toxemia in acute intestinal obstruction is due to the absorption of toxins from necrotic tissue." The bacterial source of this necrotic tissue is explained by Dragstedt of Chicago who says, "Intestinal stasis or complete obstruction leads to the development of proteolytic intestinal flora, irrespective of the character of the diet." Hence we find diet, aciduric or proteolytic, if it were possible to control it previous to the onset of these conditions, would have little affect on the prognosis.

Appendicitis while usually seen in time to get good results by usual operative measures is not a condition to be considered lightly. Sometimes a general peritonitis is present when the case is first seen by the surgeon, and often develops after surgical intervention. Here again we adopt a *laissez faire* policy and hold to general symptomatic treatment hoping that the infection is not virulent enough to produce death. Unfortunately many of these patients succumb to the toxemia.

The question now naturally rises as to the value of a lymphatocostomy in these cases. To my knowledge there has been but one case reported in the United States. This was a case of puerperal infection reported by Dr. A. C. Edwards of Barbaboo,

Wisconsin, which was operated under local anaesthetic with gratifying results. Dr. Costain states that he has operated several cases of pneumococcic peritonitis in the Sick Childrens Hospital at Toronto and has succeeded in reducing the mortality from ninety to fifty per cent.

This procedure of course has yet to be worked out on different types of cases. From the experimental evidence it seems that it might be used in any case where there is a general peritoneal infection. If, with a lymphatocostomy, the peritoneal cavity of a dog can take care of such a formidable lesion as a ruptured appendix with general peritonitis, the procedure it seems should demand our consideration. The operation itself should be less difficult in the human than in the dog, as the duct is more accessible and being larger could be more easily drained. The operation is readily done under local anaesthetic on the dog and this method would probably be advisable on the human as many of the cases in which this operation should be chosen would be *in extremis*. Only time and experience will give us its full indication and value. Naturally the adoption of this procedure will be slow. The main reason for this is summed up in a statement by Costain: "The inbred antipathy which the surgeon has for any surgery connected with the thoracic duct is going to be the greatest drawback to the advance of this procedure, but that is bound to be corrected in time."

CONCLUSION

1. Ligation of the appendix and mesoappendix in dogs, without drainage, produces a constant fatal peritonitis within forty-eight hours.

2. Successful drainage of the thoracic duct at the base of the neck, saves the dog after a fatal peritonitis has been produced.

3. Death in the form of toxins and bacteria travels to the systemic circulation through the thoracic duct.

I wish to express my sincere thanks to my co-worker Prof. J. R. Wells who made these experiments possible by furnishing facilities and working with me in the Kansas State Teachers College of Pittsburg, Kansas.

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BELL MEMORIAL HOSPITAL CLINICS

Clinic of Ralph H. Major, M.D.

Department of Internal Medicine

AORTIC STENOSIS

The patient I wish to discuss today brings home to us that the unusual does occur. A great many diagnoses, particularly those based on physical diagnosis, are based on the laws of probability. For instance, when we hear a systolic murmur at the base of the heart the thought immediately flashes through our minds that ninety per cent of such murmurs are functional. Similarly when we hear a pre-systolic rumble in aortic insufficiency we remember that nine times out of ten it is a Flint murmur and not due to a diseased mitral valve.

This patient has interested us very much because of the comparative rarity of the disease picture and because of the uncertainty as to a diagnosis.

The patient is a colored man, aged 46, a laborer. He was admitted to Bell Memorial Hospital on May 20, 1924, and died two days later. His chief complaint was shortness of breath and swelling of the feet and ankles.

The family history is negative. The personal history is of considerable interest. In 1908 he suffered from what was apparently an attack of rheumatic fever and was in bed one week. At the age of 27 he had syphilis. There is no history of any cardio-respiratory disease or gastro-intestinal trouble in the past. He has worked as a seaman and longshoreman.

The onset of the present illness was in December, 1923, about five months before admission. The onset was sudden, with a severe coughing attack and extreme dyspnea. He then had rattling sounds all through his throat and chest and coughed up very large quantities of frothy blood-tinged sputum. This attack lasted for twelve hours and then subsided.

He has had no recurrence of the acute attack but ever since that time has been gradually growing shorter of breath. A swelling of the feet, ankles and legs also ap-

peared and he has lost twenty-five pounds in five months.

The physical examination showed a man extremely dyspnoeic propped up in bed. The examination of the heart showed a marked enlargement especially to the left, the point of maximum impulse being in the sixth interspace at the anterior axillary line. Auscultation of the heart showed a definite presystolic rumble at the apex followed by a soft systolic murmur. At the aortic area there is a very loud harsh blowing systolic murmur and also a fairly loud diastolic murmur. The systolic murmur is well heard over the heart and the diastolic murmur is heard down in the left sternal border. There is no thrill felt. Patient showed marked enlargement of the liver and extreme edema of both legs.

The pulse is small and not well sustained. Not the slightest suggestion of a water hammer pulse. The Wassermann reaction was positive.

The study of this history and physical findings is of great interest. The initial attack described by the patient when he became so short of breath and had rattles throughout his chest, was obviously an attack of acute edema of the lungs. It has often been remarked that this condition can be diagnosed when the patient is almost half a block from the physician. No other condition produces such extreme dyspnea combined with noisy rattling rales.

It is very obvious at the beginning that the patient has a very marked enlargement of the heart. Auscultation also makes one quite certain that he has an aortic insufficiency. The very harsh systolic murmur heard at the base of the heart is frequently heard in luetic aortitis. Since the patient has a definite aortic insufficiency, the history of syphilis and a four plus Wassermann, there would be no question of an aortitis producing this murmur except for one thing, the fact that this patient instead of having a water hammer pulse, has an extremely small pulse, the kind that is met with in aortic stenosis. For that reason the diagnosis of aortic stenosis must be seriously considered.

The findings at the apex of the heart would lead one to diagnose a Flint murmur since in our experience more than three-fourths of such presystolic murmurs are not on an organic basis.

Before this patient's death it was felt that he had heart disease of syphilitic origin, involving the aortic valve, primarily producing an insufficiency with possibl-

some degree of stenosis. The diagnosis of luetic aortitis was also considered very probable. While the diagnosis of mitral stenosis was suggested it was pointed out that anyone who makes this diagnosis in a patient suffering from aortic insufficiency is wrong about nine times out of ten. Such was our reasoning before the autopsy.

The autopsy was performed by Dr. Wahl and revealed a very interesting condition. The patient's heart condition was not luetic in origin but rheumatic. He had an aortic insufficiency but the most marked lesions were an aortic stenosis and a mitral stenosis. The mitral valve was so narrowed that when the left auricle of the heart was filled with water it took about fifteen minutes for it to pass through the mitral valve into the ventricle. The aortic valve showed a stenosis almost as marked as that of the mitral valve.

This patient then as I emphasized in the beginning, shows that the law of probabilities, which plays such a role in diagnosis, may fail us at times. We have seen many patients in this clinic come to autopsy who had an aortic insufficiency and a pre-systolic rumble. This is the first patient we have had for a long time who had a mitral stenosis complicating an aortic insufficiency. It will probably be some time before we see the counterpart of this picture again. Meanwhile we shall continue to diagnose pre-systolic murmurs in most cases of aortic insufficiency as Flint murmurs.

Again, by far the greater number of patients in our clinic with a harsh systolic murmur at the base, a history of syphilis and a positive Wassermann, have an aortitis and we are correct nine times out of ten in making this diagnosis on this patient. However, this patient seems to have been the tenth one who was missed.

One of the most interesting features of this patient's picture was the very small pulse. This led us to suspect strongly an aortic stenosis, a diagnosis confirmed by autopsy.

—R—

"The germ that causes foot and mouth disease, in brute animals has been isolated. The bacilli are too small to be seen with the highest power microscope, but by photography with light waves of short wave lengths they are revealed as rods about one ten-thousandth of a millimeter in length. The bacilli clot together to form globules about the size of a red corpuscle."

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Punishment of Crime

Recently, in Chicago, something like \$500,000 has been spent, if the newspaper reports are not inaccurate, in determining whether a couple of confessed murderers should be hanged or confined in prison for life.

Since it was unnecessary to estimate, control or guide the multiform mental gymnastics of twelve jurymen, since the learned judge, a veteran at the Bar, of notable legal discrimination and judicial discretion was the sole arbiter of the fate of these confessed criminals, one may wonder if the trial was not staged for the influence it might have upon the people. It is hardly conceivable that the judge was undetermined as to the sentence he should pronounce. It is less conceivable that his ideas of the proper punishment would be altered in any degree by the evidence introduced or the prolonged argument of the learned attorneys in the case. It is conceivable, however, that the evidence and the argument could have some influence in determining the sentence that is pronounced. Such conditions are not impossible. One may pre-

sent a hypothetical case, for instance: Before a learned judge, whose mental horizon is more extended than that of the ordinary legal mind, are brought two criminals who confess to the murder of an innocent and harmless individual, giving certain particulars of such a revolting nature that they are unfit either for the public trial or the newspaper reports, but are sufficient evidence of the homosexuality of the criminals. The law prescribes certain penalties for certain crimes, punishment to fit the crime, but our judge has a preconceived idea that the punishment should fit the criminal, and believes the punishment prescribed in this case does not fit the criminals. He holds this conception practically alone in the legal profession and the populace clamors for the lives of these victims of perverted instinct. If by a hearing of the evidence and the opinions of eminent psychiatrists who have studied the mental attitude in such cases, public opinion can be even partially converted, he may mitigate the punishment the law prescribes without being too harshly censured and held responsible for a miscarriage of justice.

No one but the judge knows, or is likely to know, how much if any influence this trial had upon his decision, as to the fate of these two criminals, and in so far as the administration of justice is concerned it makes little if any difference whether the criminals are sentenced to be hanged or to be imprisoned for life. The establishment of a new principle, a new precedent in the trial of similar cases, is worth more than \$500,000 to the State of Illinois.

There was a time when each individual was judge, jury and executioner in the punishment of those who offended him. The usual code was "an eye for an eye" etc. As civilization advanced and governing bodies were formed, the punishment of crime was taken out of the hands of individuals but the code was slightly if at all changed. The motives of our primitive forefathers in meting out punishment was usually revenge, but revenge is not at all a

satisfactory motive for a state, even with the same code of punishment.

There are now suggested two motives for inflicting the death penalty for murder—its deterring action upon other potential murderers, and the removal of a menace to society. As for the criminal himself life imprisonment is a greater punishment than hanging or electrocution, because it lasts longer. The degree of punishment of the man sentenced to be hanged is proportionate to the time that elapses between the pronouncement of his sentence and his execution.

Seneca said: "The greatest chastisement that a man may receive who hath outraged another, is to have done the outrage; and there is no man who is so rudely punished as he that is subject to the whip of his own repentance."

There is some doubt of the deterring action of the death penalty upon potential murderers and statistics seem to show that it has none. In that case the only real motive for putting a murderer to death is to remove a menace to society. In other words it is an economic proposition—it is cheaper to kill him than to keep him in prison for the rest of his life.

As an economic proposition, however, there are phases that justify more consideration than has been given them. In cases of murder for instance, the friends and relatives of the victim are not considered in the punishment of the criminal. It does not relieve the distress of the wife and children or other dependents of a murdered man to hang his murderer or imprison him for life. Neither does it reimburse the state for the expense of his conviction or his imprisonment.

From an economic viewpoint then it is a reasonable conclusion that society would be best served by confining the murderer and keeping him employed in some productive occupation the income from which may be applied to the support of the dependents of his victim, and reimbursement of the state for its expense. If his victim leaves no dependents, then society will be best served

and best protected by the demise of the murderer after his labors have reimbursed the state.

There is no reason why the same principles should not govern the fixing of penalties for crimes involving the loss of property. The loser from a theft gains nothing by the imprisonment of the thief. But the labor of the imprisoned thief could be made to reimburse the victim for his loss as well as the state for its expense.

This case which has recently been tried in Chicago has added one more to the countless demonstrations of the futility of expert testimony in arriving at either facts or justice, under the present system of examining witnesses and the usual methods of employing experts.

An intelligent man, a recognized expert in his particular line of work, may be made ridiculous in being compelled to answer yes or no to a question propounded by an attorney. Evidence that would be of the utmost importance in the trial of a case may be so fragmented and distorted that it becomes meaningless and valueless. The attorneys in examining the witness endeavor to bring out only such evidence as may be favorable to their client and prevent any testimony that might be prejudicial to their client's interests. Under such circumstances and with the usual method of eliciting evidence, an expert witness is sometimes inveigled into making statements that he would not make before a body of medical men, and would not intentionally make to the court. If evidence in the diagnosis of disease were elicited in the manner in which evidence is brought out in the court room there would be few correct diagnoses made.

Because an expert witness is employed by one side in a case, he is expected to give evidence or opinions favorable to that side, and no matter how honest he may be, or how correct his evidence and opinions may be, he is subject to a suspicion of prejudice.

The evidence of medical expert witnesses might in many cases, especially in the trial

of certain criminals, be of inestimable value to the court and might, not infrequently, prevent the miscarriage of justice, if it could be given in an orderly manner in its whole, and without interruption and interference by contending attorneys. Under the present system, however, it loses much of its force, is often misinterpreted or incompletely stated, fails in carrying out the purpose for which it is presumably sought, leads to mistrust of the intelligence and integrity of the witnesses and to discredit of the medical profession.

— R —
CHIPS

We are told to love our enemies. If we cannot, forget them.

It is better to be bald on the outside of the head than on the inside.

Psychic—In California no matter how heinous the crime, they never hang the criminal with a wooden leg. They hang him with a rope.

Rhazes, an Arabian physician, in the ninth century, is given credit for first describing small pox and measles accurately. Sounds like razzor.

The French Surgical Society reports the use of a new anesthetic and name it somnifere. Some name? The dope is injected into the vein after previous hypodermics of morphine or scopolamine. The report states that the patient remains in a stupor for twenty-four to thirty-six hours after the operation, that there is no after sickness or bad effects following its use.

Richardson in discussing meat as a source of protein says:

"in order to secure enough complete protein to supply the bodily needs, a larger total amount of vegetable protein derived from ordinary cereals and vegetables is necessary than if a sufficient and equivalent amount were derived from animal protein, for example, meat.

"The vegetarians have argued that animal proteins decompose in the digestive tract and give rise to toxic substances harmful for health, but it is a fact that the vegetable proteins are just as readily decomposed as animal proteins, and, since vegetable proteins are usually accompanied by just as many bacteria and spores as animal proteins, more putrescible material will be ingested if the body requirements are

supplied by vegetable proteins than would be the case with animal proteins."

The meat packers claim that there has been a decrease in the consumption of meat in this country since the beginning of the World war. The per capita consumption of meat in the U. S. in 1907 was 167.4 and in 1922 it was 149.7, but the low point appeared in 1917 when it was only 131.8. They also figure that the daily per capita consumption for 1921 and 1922 was 0.4 pounds with a protein value of 20 grams. The protein standard is estimated at from 60 to 120 grams per day, leaving from 40 to 100 grams of protein to be supplied from other sources.

In his recently published book on Goiter, Dr. Israel Bram, says: "Since enlargement of the thyroid is inconstant, not essential to diagnosis, and merely incidental to the syndrome, it appears to me that Grave's disease should not be included in the classification of goiter, but in the consideration of constitutional affections. We might state that the subject of Grave's disease with an enlarged thyroid is no more a case of goiter than is the subject of typhoid fever with enlarged spleen a case of splenomegaly."

The report of the chairman of the State Committee on Cancer, Dr. E. G. Brown, health officer of Topeka, shows that about 42,000 persons were reached through him in the following ways: There were 49 lectures with a total attendance of 3,000. There were 117 readings of the church letter before an attendance of 10,850. The number of persons who were reached through movies was over 28,000. In addition to these, 41 news articles were published and 5 radio talks were delivered.

In 1878 a grateful patient or friend of the Marine Hospital Service (now the Public Health Service) donated \$523.50 "for the benefit of the Marine Hospital at Bath, Maine." The amount was placed at interest by the Collector of Customs, and is still on deposit, because there was no Marine Hospital at Bath, Maine, and never has been, the nearest ones on that coast being located at Portland, Maine, and Boston, Massachusetts.

Practically all cities in the United States are increasing in size, and the city of Bath is no exception to this rule. It is not at all improbable that the time may come when a new Marine Hospital will be needed on the Maine Coast to serve those who go down to the sea in ships, in conformity with the

government policy established in 1798 to provide medical care for merchant seamen. Students of compound interest may compute the period necessary for the donation to grow to the necessary amount.

Marvin and Soifer have studied the effects of camphor in oil as a cardiac stimulant. They failed to secure evidence of any action on heart rate, respiration, blood pressure, vital capacity or the general clinical condition in which digitalis is frequently promptly effective. Henceforth, the burden of proof that camphor in oil has a rational place in the treatment of congestive heart failure rests with its advocates. All others may well hesitate to place their trust in a drug stat seems to have given more promises than therapeutic performances. (*Jr. A.M.A., Aug. 2, 1924.*)

Digitalis is absorbed rapidly and fairly uniformly from the alimentary tract of man, although some substances in the digitalis group, notably strophanthus products, are unsuited for oral administration. However, nausea, vomiting or surgical operations may sometimes interfere with the use of digitalis by mouth. For such emergencies digitalis may be satisfactorily administered by rectum. In many patients with auricular fibrillation, the results have been rapid and beneficial. Rectal digitalis therapy is not intended to supplant the well established oral method of administration, but rather to be used as an emergency measure when the customary mode of introduction is not feasible. (*Jr. A.M.A., Aug. 9, 1924.*)

The Council on Pharmacy and Chemistry has long held that digitalis effects can be obtained satisfactorily in most instances by the oral administration of digitalis itself, the tincture or the infusion, and that the intravenous administration of digitalis preparations is rarely necessary. However, investigation indicates that digitalis preparations are administered intravenously far more frequently than seems to be demanded. Because of the importance of digitalis therapy, the Council decided to appoint a committee composed of men who have made a study of questions concerning the administration of digitalis, and to request this committee to prepare a report for publication which would set forth concisely the limitations of digitalis therapy and the methods of obtaining digitalis effects. At the request of the Council, Drs. G. Canby Robinson, Paul D. White, Cary Eggleston

and Robert A. Hatcher prepared a report. This report brings out the indications for the use of digitalis, the limitations of the drug, its dosage and method of administration. It discusses at considerable length the conditions where the intravenous and intramuscular administration of digitalis may be called for and when the oral administration will be found satisfactory. The report concludes with the statement that the oral administration of digitalis in the form of the standardized powdered leaf, infusion or tincture, meets every requirement of digitalis therapy, with the exception of those relatively infrequent cases in which immediate relief is imperatively demanded, or when nausea or vomiting precludes the oral method, and outlines the intravenous, intramuscular or rectal administration of digitalis bodies when the threatening condition of the patient demands immediate relief. (*Jr. A.M.A., Aug. 16, 1924.*)

Anaphylaxis is that state of hypersusceptibility to a given substance which has been induced by a previous injection of the same substance. The reaction is limited to substances of a protein nature. A considerable variety of chemically unrelated substances may produce "anaphylactoid" symptoms after intravenous injection by virtue of their causing occlusion of the pulmonary capillaries by thrombosis or by agglutinated corpuscles or platelets. Some of the substances which may produce anaphylactoid phenomena have been widely proposed for intravenous therapy including a variety of "colloidal" solutions of iron, mercury, arsenic, antimony and protein, as well as extracts of animal tissues. In consideration of the possibility of anaphylactoid reactions being induced by such substances, it is well to reiterate that there seems to be little, if any, justification for the intravenous administration of such agents as hexamethylenamin, sodium iodid, and sodium salicylate, because their systemic effects are readily obtained by oral administration. (*Jr. A.M.A., Aug. 23, 1924.*)

Numerous devices have been advanced for the inhalation of chlorin gas. Several municipal health departments have installed treatment chambers where such devices are undergoing extensive experimentation. It is impossible to say if the virtues of the method has been demonstrated, and it must be considered in an experimental stage. The indications are that chlorin inhalations will not produce bacterial sterilization of the mucous membrane, although they seem

to reduce the number of bacteria found on the tissues. The duration of an adequate treatment, the concentration of gas to be used, the methods by which the gas is to be produced, and similar factors are still the subject of experimentation. (*Jr. A.M. A., Aug. 30, 1924.*)

Recently a death was reported which was caused by the injection of a hemostatic preparation. It was discovered afterwards that the patient was a sufferer from asthma and that the attacks were elicited even by the mere approach of a horse. Because of the importance of determining the anaphylactic possibilities of the various blood coagulants, the Council on Pharmacy and Chemistry had specimens of the following preparations examined: Coagulen - Ciba, Fibrigen-Merrell, Hemagulen-Lilly, Kephalin-Armour, Hemostatic Serum Lapenta (Hemoplastin) P. D. and Co., Thromboplastin - Lederle, Thromboplastin - Squibb, Thromboplastin Solution-Armour, Precipitated Horse Serum (Coagulose)-P. D. and Co. It was found that all of the specimens contained animal protein (in most cases horse or beef protein was present). In most cases the labels and descriptive literature did not state the precise nature of the coagulant. Since blood coagulants are usually administered as an emergency measure, physicians may overlook the danger and introduce these foreign proteins into a hypersensitive person. The Council recommends that all hemoplastic preparations be labeled to show the composition of the product, the character of the protein present, and to contain information which will cause the physician to inquire into the patient's history to learn if hypersensitivity exists. (*Jr. A.M. A., Aug. 30, 1924.*)

In an article on the Nervous and Mental Disturbances of Influenza, published in the N. Y. Med. Journal in 1918, Smith Ely Jelliffe said: "The manner in which each individual is going to react to the grip virus is going to be determined by his dose and the way in which he has handled, or is handling, his conflicts. As these are two, or more, independent variables, the results, speaking mentally, are legion.

"The most frequent of these are the various neurasthenic forms which may show as simple fatigue, involving attention, or myasthenic states, or a host of neurotic or fatigue medleys in the viscera. These influenzal neurasthenias occur with either severe or with mild systemic signs of infection. There is for most patients an extra-

ordinary myasthenia with great depression of spirit. In the majority of instances this clears up in from one to two weeks—in some after two or three days. But in a still strikingly large number of patients the residual neurasthenic fatigue is severe.

"By neurasthenia is here meant the pure fatigue syndrome due solely to the toxemia alone or toxemia plus the emotional conflicts to which attention has already been directed. Of the other neurasthenic syndromes much may be said. There are many in which the fatigue is not the only symptom but in which various visceral neurotic disturbances persist."

—R—
Contributions
BY THE PRODIGAL
DIVERSION

The reason so many of us object to man's ape origin is that our conduct shows an affinity. The same principle governs in our objection to our poor relations. We do not object to them because they are poor but because they are relations.

It is the humanness instead of the apeness that gets us. The scientists tell us "that these highest existing apes are side branches, so to say, of the ancestral tree, who developed, in their several ways, contemporaneously with our direct ancestors, but are not of themselves directly of the royal line. The existing ape that has clung closest to the direct ancestral type of our own race, it appears, is the Gibbon—then the Pithecanthropus Erectus (man ape) then the Homostupidus, Homoneanderthalensis, and last, proud Homosapiens—man himself." There are now but two more pegs needed to stick in the wall to hang the completed evolving circle in process upon. From what and "why evolved at all?"

Our consolation is in freedom of choice to claim to be a dichotomous branch of the ancestral tree from which the Gibbon sprang or Homo sapiens having originated de novo.

LIGHT STUFF

The latest thing on dietetics is illuminating dinners. It is found that light stimulates digestion. When a patient has dyspepsia he can eat what he wants and carry an incandescent lamp next to the skin over his stomach, hidden from view and it will silently digest the intake.

The globe, flattened and curved to fit the waistline, will round out the features in this location and give a more livable appearance to the skeletal body.

The idea of light increasing digestion

was gotten from the poultry man who increased the output of eggs from his hens by lighting his hen-house at night. Light tones up the defective effectivity of a man's viscera the same as that of a hen.

Moral: More light, more digestion. More digestion, more eggs.

P. S. The only caution to the dyspeptic is if he overdoes the lighting, it might set him to laying eggs.

PREMATURES

In no field of human endeavor are there more investigators at work than there is in medicine as a whole. This army of investigators makes progressive medicine.

These reports help the other workers in the field and hasten discovery. It helps the practicing physician. There is a tendency, however, to talking too much. Talk is cheap and the reason it is cheap is because the supply exceeds the demand.

There are several things for an investigator to consider before he makes his findings public, to live the "Golden Rule." He should consider how perfected his findings are. How far is he along in the progressive stage. If what he has found out has proven practical and is of sufficient worth to the profession to report it. If his discovery is in the embryonic stage, and if he has found neither the nucleus or nucleolus, as yet, he has no foundation to build upon. Such a report is guess work and not even an opinion. At any rate it is an opinion not worth publishing. It is a fledging and not dry behind the ears. Such incomplete reports cause the physician to wade through such an immense amount of reading matter that he becomes mystified, hazy in the intellectual grasp of he knows not what.

It is a difficult thing for an experimenter to know when and what to report for the best interest of his clientel. He is so absorbed in his work and the field is so big and yet so interesting and enticing that it is hard for him to keep from slopping over in his reports. He becomes so enthused that he forgets himself, that others not experimenters but followers cannot see what he does, and are not capable in the early stage to use their bi-focals the same as he. Neither are they able to comprehend what he thinks he sees. We conclude that more discrimination should be used in publishing so many incomplete findings or reports and too much editorial matter, simply to wind up by saying, "The proof is unsatisfactory. The detail has not been worked out. It is

in a chaotic state. It is in doubt." Different investigators come to different conclusions. And many more ifs and ands and doubts and provisos. It would save paper, ink, labor and the practitioner's time, aside from befuddling him and filling him up with facts that are not so.

Time is an alement of value in the business world and why not to the doctor. It would save the lives of many patients, also, to wait and learn, definitely, if there was certainty in the vision. In waiting the opportune time, so much would not be taken for granted because it is the other fellow's skin that is punctured.

DIATROPISM

In plant physiology diatropism is the tendency of certain plant organs to place themselves transversely to the line of action of a stimulus. This vitamin tendency—ether emanation—is taken into and appropriated by the human body. Hence a great deal of man's trouble and time is caused by and taken up in trying to prove the other fellow is mistaken, is in wrong.

The stimulus for the present mental diatropism is a little folder sent to the physicians bearing the name of the American Medical Association. The folder serves a three-fold purpose. It advertises, suggests, and has for sale a "Caduceus Emblem" to attach to the front end of the auto radiator. The emblem is to show or signify that you are a doctor. "It not only signifies that yours is a doctor's car—in many cities it is officially recognized for special traffic or parking privilege—truly the right of way sign. Its signals make you known—keep you going."

The "Caduceus Emblem," insignia, sign or distinguishing mark for public observation and notice to get out of the way consists of two vicious looking snakes coiled around the same stick and each other from below up and near the top their necks are arched out and heads raised and apart ready to strike and eat each other up. The stick is surmounted by a door knob, and just below the ball or knob and above the snakes' heads, a pair of wings is outspread—suggesting quick transportation to a destiny—after the deadly poison has been injected.

This Caduceus is classical. It is handed down to us from antiquity or at least a mediaeval time. It was a message of the gods, the kind they had in those days. The stick was said to be made of olive wood and adorned with gold, but afterwards fabled

to have two serpents—snakes—coiled about it and two wings at the top.

The Caducity of the "Emblem" means a falling off; dropping away; transitory. It is a relic of heathenism and recalls to mind the age of serpent worship and the history of Belshazzar's feast in the open court. During the feasting and debauchery, lightning struck the wall of the open court and zig zagged down the wall and scared the whole bunch stiff. Some wiseacre took advantage of the natural phenomenon and the ignorance and superstition of the drunken outfit and read into the incident just what they were.

It matters not about how it was "did," the lesson taught is the same.

Before the doctor puts such a 'Caduceus Emblem' on the front of his radiator to be seen of all men; and an insignia of his kindly mission in life; and snakes facing his patients constantly; and his image to be ever reflected in their minds accompanied by snakes as a comfort and assurance and an inspiration to them; as proof of the wisdom of doing so—a little practical application of the "Caduceus Emblem" in the rough, will be to take a couple of snakes in a box with him—rattle snakes preferred—turn them loose in the sick room and let them crawl around the room, prodding them occasionally to make them hiss and rattle, that their presence and noise may attract the patient's notice and attention and soothe and quiet his nervousness.

Such an object lesson would confirm the effect the "Caduceus," snake emblem's effect would have, in the raw, on the sick man and the propriety of flaunting such a repulsive insignia before the public to endear the doctor's clientele to him. If it works all right to the ennobling of the profession in the eyes of the public, other insignia can be added from time to time as the gruesomeness of the snake "Caduceus" loses its thrill. In addition to the snakes, a skull and crossbones could be painted on the sides of the auto; behind, the man, exposing his innards, as represented in the signs of the zodiac; on the top, for the aviator, a picture of his Satanic majesty; the chassis made serpentine in outline and coffin shaped for the victim to see, if alive, who has been run over. Thus equipped the medical profession would be several jumps ahead of the Creator in marking Cain and each doctor a full fledged Hell and Maria.

Josh Billings said, "When I. c. a snake

sticken its head out of a hol in the ground I says to myself that hol belongs to that snake and I go roun on tother side of that hol."

The "Caduceus Emblem" is classical but the doctor who practices it is likely to be placed in the class with the fellow who gave the apple to mother Eve.

P. S. On second thought the "Caduceus Emblem" may be propaganda for the hooch maker and bootlegger to get the people used to snakes and to love them. But with premeditation and forethought it does seem that the medical profession's insignia should be one representing the kindly, beautiful, peaceful, cheery and helpful things in life and not that of the gruesome, distasteful and repulsive things, and especially the things dreaded next to death—snakes.

—————R—————

MEDICAL SCHOOL NOTES

Dr. H. R. Wahl, professor of pathology at the medical school, was recently appointed acting-dean. Dr. Wahl was graduated from the Johns Hopkins University Medical School in 1912, after which he was in the department of pathology at Western Reserve University for four years, and at the same time pathologist to the Lakeside hospital. At the beginning of the World war he was director of laboratories in Mt. Sinai Hospital, Cleveland, Ohio, and went from there into the army where he served two years as major and instructor in bacteriology. At the close of the war he came to the Kansas University as professor of pathology.

The other new appointments at the medical school are as follows:

Dr. T. G. Orr, professor of surgery and chairman of the surgical department.

Dr. Sam E. Roberts, associate professor of oto-rhino-laryngology and chairman of that department.

Dr. L. P. Engel, assistant professor of surgery and director of the dispensary.

Dr. C. C. Nesselrode, of Kansas City, Kansas, has been appointed associate professor in surgery.

The new temporary dispensary building and colored hospital are completed and are in use. They are directly north of the new Bell Memorial Hospital, joining it with a corridor. The colored hospital has two wards of twelve beds each. The arrangement of the different departments in the

dispensary building is similar to that in the old building, with an addition of new equipment.

Dr. Forrest N. Anderson '21, is with the United States Public Health Service and can be addressed at 3018 East 91st, South Chicago, Ill.

Dr. A. R. Chambers '23, is practicing in Humboldt, Kansas.

Dr. F. J. McEwen '21, of Iola, and Dr. B. P. Stephens '21, of Concordia, were recent visitors at the medical school.

Dr. A. L. Skoog has been delegated by the Rockefeller Institute for medical research to use Tryparsamide, a new preparation for the treatment of syphilis of the nervous system.

Dr. M. L. Bills '23, is associated with Dr. A. L. Skogg.

Dr. A. E. Hertzler, who has already given the medical school library a large number of valuable volumes, recently donated a complete set of the Archives of Medical History.

DEATHS

David Dill Wilson, Nortonville, aged 63, died August 3, 1924, at his home. He was graduated from Rush Medical College in 1890. He was formerly lecturer on orthopedic surgery at the Kansas Medical College, Topeka. He was a member of the Kansas Medical Society.

American Proctologic Society

Upon adjournment of the 25th annual meeting of the American Proctologic Society which has held June 23-25, in the New York Academy of Medicine, some twenty of the members journeyed to London on invitation of the English Fellows who are the leaders of the specialty in Great Britain.

On the occasion of its 25th annual meeting, the American proctologic Society recently made a pilgrimage to London at the earnest request of the leaders of the Proctologic specialty in England. Here, on July 9-11, they met in conjunction with the subsection on Proctology of the Royal Society of Medicine with Mr. Aslett Baldwin, the president in the chair.

Dr. William A. Beach of Pittsburgh

started the session with an historical paper on "The Evolution of Proctology." Following this Mr. Graeme Anderson of London gave a most interesting paper on "The Injection Treatment of Hemorrhoids." Dr. Louis J. Hirshman of Detroit described a new operation for "Rectal Prolapse" and this was followed by a paper on "Pruritus Ani," illustrated with moving pictures by Dr. J. F. Montague of New York.

The following day was devoted to a most interesting discussion of the subject of Cancer, the paper being presented by Mr. W. Ernest Miles. Members of both societies took part in the general discussion that followed each paper.

The visiting American proctologists were most lavishly entertained by their English hosts, from the opening luncheon at the Royal Automobile club to the closing banquet at the Hotel Langham, and all felt highly elated at the success of the European trip.

The officers of the American Proctologic Society elected for the year 1924-1925 are:

President, Dr. Frank C. Yeomans, New York.

Vice president, Dr. William A. Rolfe, Boston.

Secretary-treasurer, Dr. Jos. F. Montague, New York.

BOOKS

Modern Methods of Treatment by Logan Clendenning, M. D., assistant professor of medicine, lecturer on Therapeutics, medical department University of Kansas. Published by C. V. Mosby Co., St. Louis. Price \$9.00.

The author has endeavored to present a work that will meet the requirements of modern medical practice. He describes the various methods of administering drugs and classifies them according to their special action. Next he discusses biologic therapy and prophylaxis, extracts of ductless glands and their appropriate uses, dietetics, hydrotherapy, gymnastics and massage, exercise, electrotherapeutics, radiotherapy, climate, aerotherapy, etc., psychotherapy, miscellaneous procedures.

In part II he discusses the application of therapeutics to particular diseases and these are classified as: infectious diseases, diseases due to allergy, diseases of metabolism, diseases of the blood, diseases of the cardiovascular system, diseases of the respiratory system, diseases of the kidney, diseases of the digestive system, diseases of the ductless glands. Under these heads

particular diseases are described and the details of treatment carefully presented.

1923 Collected Papers of the Mayo Clinic and the Mayo Foundation, Rochester, Minnesota. Octavo of 1377 pages, 410 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$13.00 net.

The fifteenth volume which is now before us shows a very definite change in the plan of publication. In this volume every paper from the Mayo Clinic and the Mayo Foundation is reproduced either in complete form, in abstract or by title. Previous volumes contained only selected papers from those produced during the year.

Diseases of the Chest and the Principles of Physical Diagnosis, by George W. Norris, M. D., professor of clinical medicine in the University of Pennsylvania, and Henry R. M. Landis, M.D., director of the clinical and sociological departments of the Henry Phipps Institute of the University of Pennsylvania, with a chapter on the Electrocardiograph in Heart Disease, by Edward Krumbhaar, Ph.D., M.D., director of laboratories of the Philadelphia General Hospital. Third edition, revised. 907 pages with 433 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$9.50 net.

Having reached its third edition this work of Norris and Landis might be regarded as having found a permanent home in the medical library. It has been carefully revised, some new matter added and much of it has been rewritten. The need for thorough knowledge of physical diagnosis and familiarity with the methods used will always be fully supplied with this book conveniently at hand for reference.

Manual of the Diseases of the Eye, by Charles H. May, M.D. Eleventh edition, revised. Published by William Wood & Company, New York. Price \$4.00.

This is a very convenient manual on diseases of the eye and probably contains all the concise information the general practitioner requires. The methods of examination are clearly described and the illustrations are numerous and well prepared. A series of colored plates help out very materially the description of pathologic conditions.

Goiter, Nonsurgical Types and Treatment, by Israel Bram, M.D., professor of clinical medicine, Jefferson Medical College. Published by The Macmillan Company, New York.

The writer feels that this is one of the most important of the recent additions to medical literature. The average practitioner is too frequently helpless in the management of goiter cases and is too frequently disappointed in the results of opera-

tion. He should certainly appreciate this very elaborate and exhaustive discussion of the subject and especially the classification which will enable him to determine the non-surgical cases.

Operative Surgery. Covering the Operative Technic involved in the operations of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S. Former surgeon in charge of general surgery, Manhattan State Hospital, New York, former visiting surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate desk index volume. Volume 4 containing 842 pages with 772 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index volume free.

The fourth volume of Bickham's Surgery is out. It begins with operations upon the pericardium and heart and great intrathoracic vessels of the heart. This is followed by operations on the thoracic portion of the esophagus and intrathoracic structures. Then comes the operations upon the diaphragm and contiguous structures, operations for herniae of intestinal tract, operations upon the peritoneum, omentum and mesentery, stomach, pancreas, spleen, liver, gall bladder and biliary ducts, intestines.

Every chapter is excellently illustrated.

The Medical Clinics of North America (issued serially, one number every other month). Volume VII, Number VI, May, 1924. By internists of McGill University, Montreal, Canada. Octavo of 305 pages with 49 illustrations and complete index to volume VII. Per clinic year (July 1923 to May 1924). Paper \$12.00 net. Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The contributors to the May number of the Medical Clinics are from McGill University. An article by Moffatt on the electrocardiogram in prognosis occupies first place. Martin follows with some types of pernicious anemia. Henderson has an article on the successful treatment of asthma and allied conditions. Rabinowitch has a paper on certain problems in the treatment of diabetes. These are just a few of the many very instructive and interesting articles by a large number of writers. In fact this is one of the most instructive numbers that has so far appeared.

Life Insurance Examinations, by Frank W. Foxworthy, Ph.B., M.D., and a large number of collaborators. Published by C. V. Mosby Co., St. Louis. Price \$9.00.

A book of this kind should have a place in the library of every practitioner for the majority of them do considerable in this

line. There is enough valuable information in this book to make it worth reading without the instructions to medical examiners.

Pathological Technique. A practical manual for workers in Pathological Histology and Bacteriology, including directions for the performance of autopsies and for clinical diagnosis by laboratory methods, by Frank B. Mallory, M. D. M.D., pathologist to the Boston city hospital; and James B. Wright, M.D., pathologist to the Massachusetts general hospital and assistant professor of pathology, Harvard Medical School. Eighth edition, revised and enlarged. Octavo of 666 pages with 180 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$6.50 net.

Considerable change will be noted in the eighth edition of this work. Several collaborators have added at least authority to the chapters dealing with their particular fields. Several chapters have been rewritten and some of the older matter has been omitted.

Dislocations and Joint-Fractures, by Frederic J. Cotton, M. D., visiting surgeon to the Boston city hospital; associate in surgery, Harvard Medical School. Second edition, reset, 745 pages with 1,393 illustrations from drawings by the author. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 net.

The first edition of this work met a very encouraging reception and the author was justified in this revision. Considerable has been added and some changes made. The work is excellently illustrated, a very essential feature in a book on the subject of fractures and dislocations.

Fertility and Sterility in Human Marriages, by Edward Reynolds, M.D., Boston, Mass., and Donald Macomber, M.D., Boston, Mass. With a section on the determining causes of male sterility, by Edward L. Young, Jr., M.D., Boston, Mass. Octavo volume of 285 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$5.00 net.

The author believed that a monograph on the subject of sterility would be acceptable to the profession. He discusses the biology and frequency of sterility, the determining causes in both sexes and its prevention and finally the clinical conduct of the case. The results of laboratory experiments and clinical findings are utilized in reaching certain conclusions regarding the factors involved in sterility. The book presents the entire subject from a modern view point.

Diseases of the Eye. A handbook of Ophthalmic Practice for students and practitioners, by George E. de Schweinitz, M.D., LL.D., professor of Ophthalmology in the University of Pennsylvania. Tenth edition, reset. Octavo of 865 pages with

434 illustrations and 7 colored plates. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 net.

The tenth edition of this very excellent treatise on diseases of the eye shows the effort of the author to keep pace with such progress as has been made in this line of practice. Several new subjects have been added and much new matter has been introduced in the discussion of many old subjects. New methods of examination have been thoroughly described and the technic of a number of new operative procedures has been carefully detailed.

The Medical Clinics of North America (Issued serially, one number every other month). Volume XIII, Number 1, July, 1924, by Internists of New York City. Octavo of 426 pages with 106 illustrations. Per clinic year (July 1924 to May 1925). Paper, \$12.00 net; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

There are thirty-one contributors to the July number of the Medical Clinics. These are from New York and the clinics are all well presented. Two articles may be mentioned as being of especial interest to the general practitioner; an article by Nellis B. Foster on functional disorders simulating organic disease; and an article by Russell L. Cecil on the prevention and treatment of the common cold. There are several very excellent articles on subjects related to the heart, one by Pardee on the examination of the cardiac patient that is instructive. Another very timely article is on endocrinology and pediatrics by Draper.

There is a sufficient variety in the subject matter of this number to meet the demands of all.

The Anatomy of the Nervous System, from the standpoint of development and function, by Stephen W. Ranson, M.D., Ph.D., professor of Anatomy in Northwestern University Medical School, Chicago. Second edition, revised. Octavo volume of 421 pages with 284 illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$6.50 net.

There seems no particular need for frequent revision of works on anatomy. In this particular field, however, some progress has been made and the author has found something of interest to add to his original text. A brief account of the blood supply to the brain, some illustrations of sections through the basal ganglia and internal capsule, and several clinical cases have been added.

New and Nonofficial Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the

American Medical Association on January 1, 1923. Cloth, price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in *New and Nonofficial Remedies*, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical information about the proprietary preparations which the Council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those nonofficial remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923. Cloth, price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

This volume contains the unabridged Council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in *The Journal*; others have been published in entirety, and still others have never been published elsewhere.

In this volume the Council sets forth the reasons that certain proprietary remedies were found unacceptable for *New and Nonofficial Remedies*, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924, edition, of *New and Nonofficial Remedies*, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the

experimental stage. There is a long report on the widely advertised *Fleischmann's Yeast*, which was not found acceptable. *Benetol*, another article that has had much mention in the daily press, receives attention. There are reports on *apiol* and *mercurial oil*, which have been omitted from *New and Nonofficial Remedies*. In addition to these types, there are preliminary reports on *bismuth* in the treatment of syphilis, *ethylene* as an anesthetic, *peptone* in the treatment of migraine, and *tryparsamid*; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant not only of what the Council has done, but why it has done it, the book will be very valuable, for it supplements *New and Nonofficial Remedies* with a more detailed account of the activities of the Council during 1923. *New and Nonofficial Remedies* records those proprietary remedies which have been accepted; *Council Reports* treats those which have been found unacceptable, and those which give promise of becoming valuable.

Diabetes, a handbook, by Philip Horowitz, second edition revised and enlarged. Published by Paul B. Hoeber, Inc., New York. Price, \$2.00.

This book was prepared for both the physician and his patient to give the latter at least a more comprehensive knowledge of his disease and aid him in carrying out instructions and encourage the necessary co-operation with his physician in the management of his case. Special attention is given to diet lists and diet preparation. This little book should very excellently serve the purpose for which it was prepared.

By an error the price of Harrop "*Management of Diabetes*" was quoted as \$1.00, whereas it should have been \$2.00. This error has caused some inconvenience on the part of the publisher.

International Clinics, Volume II, thirty-fourth series. Edited by Henry W. Cattell, A.M., M.D., with numerous collaborators. Published by J. B. Lippincott Company, Philadelphia.

In this volume of the *Clinics* will be found a symposium of physiotherapy, a subject of general interest at this time. Under the section on diagnosis and treatment are several valuable contributions. The sections on neurology, pediatrics, surgery, pathology and industrial medicine each contain arti-

cles that are instructive and will appeal to the practical man particularly.

The Human Testis, by Max Thorek, M.D., with 308 illustrations. Published by J. B. Lippincott Company, Philadelphia and London.

The general interest manifested in endocrinology perhaps justifies the compilation of such data as are available concerning the organs which may be implicated in the mysterious functions that are believed to particularly concern the endocrine system. The author of this book, from his own investigations and experience is peculiarly fitted for the task he has undertaken.

—R—

An Old Friend In a New Dress

The dosage of digitalis has always been a problem—for two reasons: physiologic and pharmaceutical. And these two are obviously interrelated, for unless a reliably uniform preparation of digitals is available, how can there be uniformity of dosage, even though there may be agreement as to the physiologic effect aimed at?

The profession seems to be partial to the tincture, unless the case is one which demands hypodermic treatment; and of all the tinctures offered, the best is, undeniably, one that is made from select digitalis leaves, standardized by physiologic test, put up in small packages protected from light and air, and, of course, dated so that the physician can tell at a glance how old it is.

The reputation of Parke, Davis & Co. is such that what this house has to say about its Tincture No. 111, Digitalis, in our advertising pages, will be found well worthy of careful consideration. Further particulars, if desired, will no doubt be supplied by the manufacturers.

—R—

The Incidences of Rheumatic Fever, Chorea and Rheumatic Heart Disease With Especial Reference to Its Occurrence in Families

During the last two years at the Massachusetts General Hospital, James M. Faulkner and Paul D. White, Boston (*Journal A.M.A.*, Aug. 9, 1924), have investigated the families of 200 outpatient and ward cases with rheumatic infections, including 1,235 persons. They found that in seventy-one families, or 35.5 per cent, more than one member was affected with a rheumatic infection, 8.79 per cent of 1,235 exposed persons being infected. They investigated the families of seventy-five persons in whom there was no evidence of past or present rheumatic infection. These fami-

lies belong in the same general social and economic status as the families of the "rheumatic" patients; 474 individuals were included in these control families. Positive evidence of rheumatic infection was found in 16 per cent of these families and in 2.95 per cent of the individuals included. Families of "rheumatic" patients, then, are more than twice as apt to have another member with a rheumatic infection as families of non-rheumatic persons. In order to ascertain, if possible, the existence of an hereditary predisposition to "rheumatic" infections, the authors have studied the incidence in the children of twenty-nine parents having inactive rheumatic heart disease. Of the ninety-seven children in this group, not one had evidence of a rheumatic infection. In contrast to this, they have found that 8.9 per cent of 332 parents of children with recent acute rheumatic infection gave also positive evidence of recent rheumatic infection; 8.66 per cent of the siblings of these children were also infected. Simultaneous infection of several members of the same family was frequently noted. In the study of the relationship of social status to the incidence of rheumatic fever and chorea, it was found that the rheumatic infections are apparently less common among the so-called upper classes of society.

—R—

A Method of Obtaining Anterior Sympathetic Anesthesia in Abdominal Surgery

Robert Emmett Farr, Minneapolis (*Journal A. M. A.*, Aug. 9, 1924), states that his experience has demonstrated that major abdominal surgery can most certainly be accomplished by the use of local anesthesia. He describes his technic for anesthesia of the abdominal wall, especially anterior sympathetic anesthesia; a method which he prefers to that of Braun, Kappis or Wendling. Many operations, such, for instance, as gastro-enterostomy, may be performed without the aid of intraperitoneal anesthesia, provided the proper surgical strategy is employed. The colon, the small bowel, the gallbladder and the spleen may be operated on after blocking the mesenteries that carry their nerve supply. The induction of anesthesia by the painless method (the subdermal production of secondary wheals), the methodical, rapid infiltration of the line of incision (which must be of the proper length and direction), symmetrical elastic retraction, proper position of the patient, adequate illum-

ination, and the introduction of local anesthesia intraperitoneally directly under the eye, combined with strategic methods of carrying out the indicated procedure, is destined, in Farr's opinion, to broaden the scope of local anesthesia in this field to a greater extent than any method thus far described.

—R—

The following standing committees of the Kansas Medical Society have been appointed by the president:

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Gastric Symptoms

With Particular Reference to Gallbladder Disease

Facts elicited from the examination of 1,650 cases are presented by John M. Blackford and Maurice F. Dwyer, Seattle (*Journal A.M.A.*, Aug. 9, 1924). The approximate relative frequency of abdominal organic disease causing dyspepsia in this series is gastric ulcer, one; gastric carcinoma, two; reflex appendicitis, four; duodenal ulcer, six; gallbladder disease, twelve. Dyspepsia in adults has been considered due to gallbladder disease in nearly 20 per cent of all cases in this series. Gallbladder dyspepsia must still be usually diagnosed by older clinical methods. Dyspepsia is caused by general systemic diseases in approximately 20 per cent of patients. In certain patients, approximately 4 per cent, we have been unwilling to hazard a diagnosis of the cause of their dyspepsia.

—R—

Further Results With Ovarian Implantation

Ninety-five cases form the basis of this paper by W. L. Estes, Jr., Bethlehem, Pa. (*Journal A.M.A.*, Aug. 30, 1924). Conservation of the ovary was practiced in these cases. The tube and ovary of the side opposite the implantation are first removed. The tube of the implanted side is then removed, together with enough of the horn of the uterus, at the tubal attachment to leave a raw area the size of the cut surface of the ovary, removing usually about one-quarter of it from the surface opposite its ligament and mesentery. The amount of ovary removed depends on the amount of cystic degeneration or inflammation that may be present. As high as seven-eighths of the ovary has been removed and the remainder implanted. The cut surface of the ovary is then turned over on the denuded area of the uterine horn and sutured in place by a continuous catgut suture, beginning at the inferior margin and approximating the complete circumference of the ovarian and uterine wounds. The operation was performed on patients whose ages ranged from 16 to 41. It was usually considered for young women below 30 because in the older women there is less desire for and less likelihood of pregnancy occurring. A very edematous uterus, which is evidently involved in the inflammation, is considered a contraindication. No plastic operation is attempted if there is present a large pyosalpinx or pelvic abscesses. Ninety-three cases have been investigated, but of 45 patients traced four

became pregnant. Two women had miscarriages at about three months. Menstruation was regular, with the usual duration in thirty-three, irregular in five and either profuse or scanty and painful; in three cases the report was insufficient for accurate deductions; only four patients failed to menstruate at 23, 28, 31 and 37 years, respectively. In two of these, only a very small portion of the ovary was saved. There was almost always some gain in weight, usually from 15 to 75 pounds (7 to 34 kg.). Normal menopause, following the implantation, after menstruation for seven or more years, occurred in eight patients; in one, at the age of 33; in the others, at from 41 to 47 years. Fifteen complained of some pain, usually with the menses, either headache, backache, or pain in the same side as the implanted ovary. One woman had, with menstruation, rather severe pain in her breasts, and backache. Twenty-three, or about 50 per cent, of the patients, acknowledged that they often felt nervous. One believed she was less nervous following the operation. One woman, about a year after the operation, developed symptoms of hyperthyroidism.

Fate and Function of the Ovaries After Hysterectomy

The report made by Alice Freeland Maxwell, San Francisco (*Journal A.M.A.*, Aug. 30, 1924), consists of an analysis of the surgical menopause as it occurred in women with and without ovarian tissue. The frequency, severity, time of onset and duration of ablation symptoms have been studied and contrasted with similar disturbances of the natural menopause. Factors that might tend to modify these symptoms have been reviewed and grouped according to the age of the patient, her general condition before operation, the pelvic pathologic condition and the type of ovaries that were retained. The value of the conserved glands has been balanced against their tendency to degeneration. To complete the study, results with ovarian therapy have been included. The material consists of 500 cases of hysterectomy, followed from one to eight years. If the normal menopause is accepted as a control, this analysis indicates that: 1. The frequency of vasomotor symptoms after hysterectomy is increased when both ovaries are removed. 2. The frequency of symptoms with conserved ovaries after hysterectomy compares favorably with that of the normal menopause. 3. Severe vasomo-

tor symptoms are more common without than with ovaries. 4. The onset of delayed symptoms indicates that a definite number of conserved ovaries will atrophy within a year after operation. 5. The average duration of symptoms of the normal and surgical menopause is about two and one-half years. 6. Women with low hemoglobin are more likely to develop post-operative disturbances. 7. The frequency of symptoms depends in large measure on the type of tissue retained. 8. Retained healthy ovaries are not susceptible to degeneration.

Treatment of Nephritis and Edema With Calcium

Norman M. Keith, Charles W. Barrier and Mary Whelan, Rochester, Minn. (*Journal A.M.A.*, Aug. 30, 1924), discuss results obtained in two cases in which the balance of certain of the inorganic ions was determined. These two patients presented marked general edema. Their condition had been diagnosed clinically as subacute glomerular nephritis and subacute nephrosis, respectively. Both had ultimately a very satisfactory diuresis produced by calcium chlorid. At the end of the diuresis, both patients were much below their normal weights and both had normal renal function; the two-hour phenolsulphonethalein output in one case was 80 per cent, and in the second case 75 per cent, but albumin casts were still present in the urine and the specific gravity was relatively high. After calcium ingestion, the only change noted in the inorganic cations of the blood serum was a moderate decrease of sodium in the second case. In neither case did calcium chlorid alter the carbon dioxide combining power of the blood plasma, although the hydrogen-ion concentration of the urine dropped. There was an excess excretion of ammonium during the treatment with calcium chlorid. In both cases, during the control period, there were negative balances for calcium, chlorin and sodium. In neither case was there a proper proportion between the chlorin and the sodium, if calculated as sodium chlorid. The sodium was in excess, and was probably excreted as a salt of some other acid. When calcium chlorid is ingested, calcium is eliminated by the bowel, and chlorin by the kidney. In certain cases, sodium is discharged in large amounts and water is made available for elimination, and is excreted. The action of calcium and ammonium chlorid as diuretics, in cases of nephritis with edema, may be due in part to a change in

the acid-base equilibrium of the body, causing the tissues to liberate water for excretion by the kidney, or causing a change in the damaged kidney so as to permit the excretion of water and salts. That acidosis is not the only cause for starting diuresis is indicated by the presence of acidosis with oliguria for a considerable period in one case of this series, and in certain cases of war nephritis reported by Keith and Thomson. The antagonistic action of the individual cations and a possible specific dehydration effect must receive due consideration. It is evident that, in the edema of nephritis, the administration of such salts as calcium chlorid and ammonium chlorid leads to a separation of the cation and the anion within the organism. With the ingestion of either, sodium may be discharged from the body in large amounts.

R

The Dick Test

Forty-seven patients with scarlet fever were tested by Wesley E. Gatewood, Iowa City (*Journal A.M.A.*, Aug. 16, 1924), one or more times. Among these were twenty-six who were not tested until at least five days after the onset of the illness. These twenty-six gave either a faintly positive or frankly negative reaction. Ten persons, tested between the third and eighth day for the first time, gave strongly positive reactions at first; but later, tested between the twenty-fifth and twenty-eighth days they developed negative reactions. Ten were tested between the third and eighth days and gave positive tests, but not tested later. One patient with severe scarlet fever gave a positive reaction as late as the eighteenth day. From these few data it is evident that an estimate cannot yet be made of the time required for the development of an active immunity to the streptococcus of scarlet fever. Twenty physicians and nurses were tested. Ten gave a negative history and a negative reaction. Five gave a positive history of definite scarlet fever and had entirely negative skin reactions. Four gave a negative history and had well marked positive skin reactions. One nurse, who one year ago had definite scarlet fever, gave a strongly positive test. Sixty-five junior medical students were tested. Among these, fourteen gave a history of having had scarlet fever, and thirteen gave entirely negative reactions. The fourteenth, who stated that she had had scarlet fever with extensive rash and desquamation eleven years before, gave a moderately positive reaction. There was no history of scarlet

fever in fifty-one. Among these were fifteen positive reactions, twelve strongly positive and three weakly positive. Thirty-six had negative or faintly positive reactions. One student with a faintly positive intradermal test, about six weeks after the test was performed, developed a typical scarlet fever with the usual prodromal symptoms, then a typical angina, strawberry tongue, high fever, general erythematous rash and finally profuse desquamation. His skin test remained practically negative in the course of the disease.

R

The Value of Volume Index in the Diagnosis of Pernicious Anemia

A summary of the study made by Russell L. Haden, Kansas City, Mo. (*Journal A.M.A.*, Aug. 30, 1924), of 171 individuals with an accurate volume, color and saturation index shows that: In normal adults, the indexes are always 1.00, within the limits of technical error. In secondary anemia, the indexes are usually less than 1.00 and seldom greater than 1.00. A plus volume index is a constant finding in pernicious anemia. It is present even in early cases in which other qualitative changes are not apparent. The color index is never greater, and usually is less than the volume index. The saturation index is never greater than 1.

R

Regeneration of the Pancreas From the Pancreatic Duct

N. F. Fisher, Dallas, Texas (*Journal A.M.A.*, Aug. 16, 1924), has studied the growth of the new pancreas tissue from the pancreas duct remnants. The experiments were suggested by the regeneration of pancreas tissue from the pancreatic duct stump in totally depancreatized dogs kept alive with insulin. More than 0.5 gm. of normal pancreas tissue regenerated in the course of eight months, at the end of which time the animal was killed. For the transplantation experiments, pieces of pancreatic duct about one-fourth inch in length were taken from pups several days old and transferred to hosts 10 weeks of age. The transplanted tissue was allowed to remain from forty to sixty days and was then removed and submitted to microscopic examination. It is very evident that there is a great tendency toward the proliferation of new duct tissue. In almost every case,

when the pancreas was removed from the base of the duct, new ducts were formed to establish functional union between the pancreas and the duodenum. This formation of new ducts confirms and extends the results of previous workers with regard to the capacity of the pancreatic ducts to form new duct tissue. In two cases, a new duct grew from the base of the old duct, away from the pancreas remnant, and at its end supported normal pancreas tissue. The regenerated pancreas was more than 2 inches removed from the pancreas tissue left at the time of operation. Pancreatic duct tissue transplanted to other parts of the body of the same animal or other animals of the same species will proliferate new duct tissue.

—————R—————

Primary Chancre of the Palpebral Conjunctiva

The case reported by W. P. Ling, Peking, China (*Journal A.M.A.*, Aug. 16, 1924), is of especial interest for two reasons. It is a double infection in which the tarsal conjunctiva and the skin of the forehead are simultaneously infected. The diagnosis of the case was not an easy one. This was so for the following reasons: The patient gave a history of previous syphilitic infection in 1914; therefore, it was thought at first that it might be a gumma. However, the subsequent course of the lesion, namely, the rapid healing of the ulcer under the influence of neoarsphenamin and mercury, made possible a definite diagnosis of primary chancre. Furthermore, the fact that the Wassermann reaction was reported by the patient's physician to be positive one month after the appearance of the sores, and that it became negative after two months of vigorous treatment, further confirmed the diagnosis.

—————R—————

Report of a Case of Early Rupture of Fetal Membranes

Mildred Van Cleve, Macomb, Ill. (*Journal A.M.A.*, Aug. 23, 1924), reports a case of pregnancy in which rupture of the fetal membranes occurred at about the twenty-fifth week of pregnancy. The patient was awakened at night by a sudden gush of colorless fluid from the vagina, unaccompanied by pain, after which time a little fluid dribbled from the vagina almost constantly, especially on exertion. At the eighth

month, the patient had two hemorrhages, the first lasting two days, followed in a week by another lasting one and a half days, the flow being somewhat more profuse than that of the menstrual periods. Temperature, pulse, urine, blood pressure and pelvic measurements were normal. Abdominal enlargement was less than is usual at seven months; the fetus was small and easily mapped out; there was breech presentation; the movements were vigorous, and loud fetal heart tones were heard just below the umbilicus, at a rate of 140 a minute. There was a slight watery discharge from the vagina, without color or odor. Vulvar and vaginal tissues were moist and slightly edematous. The cervix was enlarged, edematous and boggy, and the external os was patulous; no placental tissue was felt, a foot presenting. Four days later, labor began and terminated in a breech extraction (footling) of a living male infant weighing 5 pounds (2.3 kg.), slightly asphyxiated, but readily resuscitated. There was no evidence of amniotic adhesions, and no infection of cord, umbilicus or endometrium. The pregnancy began within a few weeks after an abortion, and was also complicated by a slight premature separation of the placenta.

—————R—————

Habitual Hyperthermia During Recovery From Scarlet Fever

Heinrich Finkelstein, Berlin, Germany (*Journal A.M.A.*, Aug. 23, 1924), has investigated scarlet fever convalescents and was struck by the fact that a very large number of scarlet fever convalescents showed temperature elevations beginning in the third or fourth week after the scarlet fever itself had subsided and persisting for many weeks. Neither tuberculosis nor inflammatory sequelae were found in spite of the most careful examination. The condition was present even after very mild scarlet fever that had been characterized only by fever and eruption. Finkelstein is of the opinion that this habitual hyperthermia of scarlet fever convalescents may be attributed to a balance disturbance in the autonomic nervous system or in the heat regulating center. There is, then, a neurosis. Sympathetic stimulation removes the fever; vagus stimulation increases the fever, and vagus inhibition has no effect, thus suggesting a relative vagotonia due to weakness of the sympathetic nervous system. Next, Finkelstein tested pharmaco-

Physicians and Surgeons

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Booklet on the Endocrines for Medical Men



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logically the autonomic nervous system of fifteen children during and shortly after the acute stage of scarlet fever, to determine whether scarlet fever goes hand in hand with a change of the nervous system in the sense of a vagotonia. The findings lead to the conclusion that scarlet fever apparently affects the autonomic nervous system in the sense of a vagotonia, and that, in many cases, it leaves the patient for many weeks with a vegetative neurosis characterized by habitual hyperthermia. The experience that, in a few cases, a single injection of epinephrin removed the hyperthermia holds out the hope that an effective method of treatment will be found.

—R—

The Appendix in Relation to or as the Cause of Other Abdominal Diseases.

Charles H. Mayo, Rochester, Minn. (*Journal A.M.A.*, Aug. 23, 1924), is convinced that the appendix undoubtedly is the source of chronic infection in the upper abdomen, and, as a rule, should be examined and removed during operation on the gallbladder or on ulcers of the stomach or duodenum. If, in examination of the abdomen before operation for pathologic conditions other than appendicitis, the appendix is found to be much more seriously diseased than the symptoms had indicated, or if in operations on the chronic diseased appendix the condition is found to be much more extensive and serious than was expected from the symptom, the appendix should be considered a possible focus of disease involving the upper abdomen, and the exploration should be extended to this region by increasing the length of the incision, which is possible if it is a right medium rectus incision. So far as the patient is concerned, if he is chronically sick from gastric trouble with pyloric spasm, even if it is the result of reflex action from disease of the gallbladder or appendix, he is entitled to relief and the greatest degree of permanent relief is usually best attained by surgery. If operation fails to confirm supposed disease of the gallbladder or ulcers of the stomach or duodenum, the appendix should be examined, as it may be the offender.

—R—

Prevention of Sterility

Several points are emphasized by Donald Macomber, Boston (*Journal A.M.A.*, Aug. 30, 1924). The first is that sterility is a real problem and a big one. Sterility is

too important biologically and economically to be neglected. The effects and not the causes have been treated, and the causes will go on producing effects until they are removed. The real problem is not how to deal with sterility, but how to prevent it before it develops. Macomber points out a few of these effects and explains the causes that have produced them. When the causes are known it is as a rule fairly easy to avoid them. What is needed is more knowledge, and this knowledge must be spread by the specialist to the family physician and by him to the laity. There is a growing demand among people of intelligence for more light on these matters, and it is the duty of the medical profession to supply that light and not leave this important field to quacks and charlatans. There are developmental causes, congestive causes, infective causes and constitutional causes.

—R—

Regional Anesthesia

Its Use in General Surgery

It is the belief of M. E. Bland, Cleveland (*Journal A. M. A.*, Aug. 9, 1924), that the use of local anesthesia is an established fact, not an experiment. Its supposed disadvantage, the effect on the mind of the patient, is a belief with no foundation in fact. Its use makes easier the work of the surgeon by causing complete relaxation of the patient's muscles. It eases the burden of the patient, by abolishing the surgical shock that may follow operation and by doing away with the usual disagreeable and often dangerous after-effects. Finally, it enables the surgeon to work with perfect safety on those for whom a general anesthetic would be extremely hazardous and might lead to fatal consequences.

—R—

Alumni of The University Medical College, Kansas City, Mo., will hold a reunion banquet, Wednesday, October 15, 1924, 6:30 p. m. in the banquet room of the Kansas City Athletic club, 11th and Baltimore, Kansas City, Mo.

During the noon hour of the same day the various classes from 1882 to 1913 inclusive will hold individual class reunion luncheons.

The reunion banquet is a part of the program of the Kansas City Clinical society, which will convene in Convention hall, Kansas City, Mo., October 13-18, 1924.

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Eye Injuries and Diseases Treated With Milk Intra-Muscular—Case Reports

DR. JAMES W. MAY, Kansas City, Kan.

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

It is not the intention in this paper to bring out the history of foreign protein injections which have been used more or less for some time and with which you are entirely familiar, but to simply give a few conclusions of other observers whose experience has extended over several years, and to report 85 cases treated since February, 1923.

It is very interesting to record the seemingly remarkable cures of many men using milk injections, most of my cases bearing out their findings. That it is a panacea for all forms of acute and sub-acute infectious and non-infectious eye diseases hardly anyone believes, but that it will apparently effect some startling cures is beyond peradventure of doubt.

The action of foreign proteins injected into the human system is but vaguely understood and when given in any case it seems like taking a pot shot in the dark. We are quite sure that the explanation in a general way at least (with no positive proof, however) is that the foreign protein mobilizes and energizes the ever-present anti-bodies. It raises the leucocyte count particularly in those cases in which a decided reaction is obtained. Many injections are followed by sweats, chills and temperature rise, but in my cases, contrary to some of the other observers, improvement did not depend upon this reaction; in fact, where some of the real benefits were obtained, no reaction whatever was exhibited.

Various proteins such as egg white, peptones, typhoid vaccine, diphtheritic anti-toxin, horse serum, tuberculin, etc., are being used, but the cases under my observation were all treated with milk or the proprietary preparation of milk which is sterile, has the fat removed and goes under the trade name of Aolan.

Ordinary whole cow's milk is used. Pasteurization is supposed to destroy its effi-

cacy, but I have no first hand information either way. The milk is boiled for ten minutes immediately before using. I have been informed that this should be done for three successive days before using to destroy the possible contamination of tetanus and anthrax spores.

The first adult dose is 5 c.c., the following day 7½ c.c., omit one day, then 10 c.c., the following day 10 c.c., which completes the treatment in most cases. The dosage is not an arbitrary thing, but was worked out by Dr. P. M. Krall and myself and seems suitable. Others give an initial dose of 10 c.c., repeated for a total of four doses, while Amat of Madrid, who has used it in more than 3,000 cases, says the adult dose is 4 c.c., above that might be dangerous. The only variation we make in the dosage is dependent upon the amount of reaction obtained. When a severe reaction follows the initial injection, none is given the following day or it is discontinued. The first case I sensitized by waiting too long between doses. No untoward results were obtained, but a chill lasting fourteen hours with an exceedingly high temperature at least aroused our curiosity.

The injection should be made into the muscular structures, the gluteal or scapular region having the preference. So far we have had no local reaction except soreness and no abscesses. However, some patients complain of pain owing to the quantity which has to be administered, and I am considering changing to one of the other proteins which has a higher concentration and consequently smaller dosage.

One of the interesting features of this treatment is the great relief from pain which followed within a few hours from the first injection in nearly all cases. This is also borne out by men in other lines of medical practice, for instance, in epididymitis, pneumonia, pleurisy, acute articular rheumatism, etc.

Darier of Paris says that milk injections, although giving some negative results, have given the greatest satisfaction, and many times in cases that have been resistant to

all other forms of medication. Adult dose, 3 to 5 c.c.

Paul Schmidt (Stuttgart) says, dionin locally helps efficacy of milk injections by hyperemia at focus of disease.

James M. Patton (Omaha), summarizing the experiences of 20 leading investigators, found every case of iritis and iridocyclitis cured. In the corneal infections of various forms, of 9 reporting, all except 1 noted improvement. The simple ulcers seemed to respond more favorably than the violent serpiginous types. In gonorrheal conjunctivitis, 4 report very favorable results, 1 negative and one reports 3 cures, 4 failures. One case of hyalitis with vision 20/200 to nearly normal. In phlyctenular kerato-conjunctivitis, benefit in one-half the cases. In single cases of orbital cellulitis, dacryocystitis and intra-ocular hemorrhage, marked improvement. Two cases of prompt relief of synechia which had resisted thorough use of atropin. Leutic, tuberculous and trachomatous conditions were practically unaffected.

Practically all administered the treatment intra-muscularly. Personally he had used milk injections in 19 cases in some of which there was no apparent benefit, while in others it seemed as if some improvement could be ascribed to milk.

L. Von Lieberman (Berlin), says there has never been a case of ulceration in gonorrheal ophthalmia where the case was presented with the cornea intact, while that already existing has been healed, that the secretion usually ceases the first day and certainly after the second injection—that he has treated 1,000 cases. He considers omission of this treatment a neglect of duty.

M. M. Amat (Madrid), who has given injections of sterilized milk in 3,000 cases says that:

Pain is immediately arrested. Corneal changes may be observed in 5 or 6 hours after injection. The bactericidal effect is due to the milk proteins. The adult dose is 4 c.c.; from 15 to 20 years, 3 c.c.; 10 to 15, 2 c.c.; 5 to 10, 1.5 c.c.; 3 to 5, 1 c.c.; 1 to 3, .05 c.c.; under one year, 0.25 c.c. These doses should not be exceeded. Injections should be made on alternate days. Children and the aged are very susceptible. Three to six injections suffice—if these do not produce results others will be useless.

Milk has been successful in preventing post-operative infections, for example, in cataract cases; here it is superior to mer-

cury cyanid. Milk injections do not produce anaphylaxis.

The interscapular region is the most tolerant, the abdominal wall the most sensitive.

Following is a report of the conclusions of Lindner and Fuchs from Dr. E. J. Bribach, who recently returned from Vienna:

LINDNER—A patient of 80 stands milk injections well. L. has an idea that a negative phase follows milk injections. Does not use milk after cataract operations as a prophylactic. In injuries with iris prolapse, replacement and good result due to milk, L. has 5 such cases. Artificial milk preparations are not satisfactory as substitutes for milk injections. Boil milk at least 4 minutes (counting from time milk begins to boil up). *Do not entrust to anyone.* Milk must be fresh. Milk of any animal gives reaction. Different components of milk tried, not effective.

His dosage is: 10 c.c. for adult, 2-3 c.c. for new-born child, 6-8 c.c. for boy of 8 years.

Lindner's dosage in blenorrhea: 10 c.c., first day; 10 c.c., second day; rest, third day; 10 c.c., fourth day; 10 c.c., fifth day. An interval of a day between injections does not give good results. Injection every day does not give better results than above. Do not combine with silver treatment. This causes eschar. Gonococci usually disappear after 2 or 3 days and eye clears up in a week. Milk does not immunize so that other eye may be infected by secretion. Inject high up into gluteus. Fever appears after 2 hours. In some cases milk does not have much influence. Best results usually with great reaction. Give at least 2 injections.

Milk in gono-blenorrhea is the greatest therapeutic advance in ophthalmology in 20 years. Milk is not effective against gonoblenorrhea in cases with trachoma. (Experience with company of Polish malingerers who infected themselves to avoid military service.)

FUCHS: Gonoblenorrhea, milk therapy makes certain to save cornea if it is not involved when treatment is begun.

Dosage: 1 to 5 years, 2 to 5 c.c.; 5 to 18 years, 5 to 8 c.c.; adult, 10 c.c.

If lids are swollen, chemosis, give milk at once. Make intra-muscular injection with long needle, in inner third from trochanter to natal cleft. Do not inject into blood vessel. Into fascia is very painful. Does not use milk with weakly babies.

Do not give milk with large ulcer of the

cornea as local reaction hastens breaking down of cornea, but if a small ulcer is present in other eye, disregard this rule and give milk.

Effect of milk is disappointing in: Gono-blenorrhoea with trachoma, gono-blenorrhoea with koch-weeks, gono-blenorrhoea with eczematosa, gono-blenorrhoea with vernal catarrh.

Milk is effective in gono-blenorrhoea, iritis, ciliary injection, iritis acute (not chronic), iritis with hypopion, iritis with arthritis. In infections following operations or injury milk affords almost miraculous cures. Milk does not help much in vitreous infections. Milk is a prophylactic in perforating injuries.

Dangers—Two deaths were reported in Vienna from milk (phlegmon in gluteus). Sterilize 3 minutes.

Anaphylaxis—When patient has had previous milk injections (use milk of another animal), give $\frac{1}{2}$ c.c., wait half hour, then inject the rest (anti-anaphylaxis). Allow no interval of more than 5 days between injections.

It would require too much time to report the different cases of mine in detail, but will give the interesting phases of some of them.

P. J. Irido-cyclitis, violent; intense pain, anterior chamber filled with exudate; vision, light perception. Cause, abscessed teeth, teeth pulled, improvement 4 days. Vision 20/100. Anterior chamber cloudy. Given 5 c.c. milk, followed by first night's rest since onset in spite of fact he had been given hypnotics. Following day 5 c.c., anterior chamber clear, vision 20/30. Given 2 more shots, 10 c.c., vision 20/20, no synechia. Discharged 4 days later, cured.

I. G. H. Incised wound, cornea, iris, lens, from large sliver of metal, iris incarcerated in wound, much pain, congestion, photophobia. Treated for 1 week with atropin, dionin, heat, etc., no improvement. Given 3 c.c. milk, immediate cessation of pain, improvement continued 5 days, return of pain, given 5 c.c., pain again relieved. Discharged from hospital. Pain congestion, etc., returned in one week, given 5 c.c. Patient had severe chill lasting 14 hours, high temperature. Eye became quiet and has had no inflammatory symptoms since.

E. S. Child, age 4. Six days previous developed severe infection of one eye, followed by its fellow. Gonorrheal ophthalmia, treated by someone with argyrol; no improvement, intense swelling, could not

see cornea, pus dripping from eyes. Given 3 c.c., following day 5 c.c., third day, 7 c.c., after which time there was no swelling nor discharge; just redness of conjunctiva.

J. S. May 24th. Piece of emery in cornea, removed by someone, followed by infection 2 or 3 days later; seen first by me June 2nd, 9 days from injury; large corneal ulcer, 2 m.m. wide and 6 m.m. long, situated midway between pupillary margin and limbus. Ulcer immediately cauterized, with usual treatment, atropin, dinoin, antiseptics, no improvement, ulcer spreading. Removed to hospital, given cyanide mercury subconjunctivally, following day 5 c.c. milk given, pain relieved, 3 additional doses of milk, $7\frac{1}{2}$ c.c. and 2 of 10 c.c.. Discharged cured. Culture and smears from this case showed no organism, but it was nevertheless a severe type of corneal ulcer. Of course, one cannot say positively whether cyanide or milk gave most benefit. Was afraid to risk ether alone, so gave him the third degree.

A. M., age 71. May 10th ulcer cornea marginal; deep excavation, much conjunctival discharge, staphylococcus from smear of discharge and also scraping from ulcer. History of pain, redness, discharge, ten days' standing. Only treatment given, besides milk injections, atropin, dionin and eye wash; immediate improvement, cessation of pain and discharge. Discharged May 28th, excavation entirely smoothed over; the most rapid, complete recovery I ever experienced in one so old.

J. T. boilermaker, aged 52; corneal injury, 5 days previous with small chip of metal. Central corneal ulcer size of match head; hypopyon, much redness, pain, etc., pneumococcic. Given at once 5 c.c. milk, followed with $7\frac{1}{2}$ c.c., and 2 of 10 c.c.; no improvement whatsoever, except great relief from pain; ulcer had been cauterized twice and four subconjunctival injections of mercury cyanide had been made, and two applications of Shahan's thermaphore; continued to grow worse and Saemish incision made, followed with anterior staphylococci and enucleation.

Mrs. B. T. Abscess of lid resembling carbuncle, large core in center, much swelling; incised abscess, swabbed with iodine—no improvement. Given 4 milk injections, well in 9 days. No smears or culture made in this case.

G. T. Interstitial keratitis—3 months' standing; given four injections of milk, each followed by a chill; no improvement whatsoever.

Mrs. F. P. Operated for cataract; large conjunctival flap was made which healed nicely, but eye remained irritable, aqueous, cloudy, tenderness on pressure. Given 4 injections of milk, improvement immediate after first injection. Upon discharge, vision corrected 20/30 + 2.

W. S. Left eye blind from old injury. February 22nd, 1924, struck in right eye with wire nail, making tear in cornea and iris, commencing at limbus and extending 5 m.m. to pupillary margin—a cilia was pulled out and implanted in front of the lens where it is at the present time. The following morning his vision was reduced to hand movements at 1 foot, aqueous, very cloudy, iris contracted and much pain. He was given in all 6 injections of milk. The pain was relieved almost at once and his vision went to 20/40 in 48 hours. The wound healed kindly and he was discharged with vision corrected 20/20 — 2.

I have used the treatment preliminary to operations upon the globe, particularly in cataract, both senile and juvenile, but not in sufficient number to prove anything one way or the other.

Summary of all cases treated by this method shows:

Disease	Number of Cases.	Number of Cures.
Irido-cyclitis	7	7
Iritis	5	5
Iritis following cataract extraction	3	3
Pneumococcic ulcer.....	3	1 2lost
Corneal ulcer, other types.	23	21 2not improved
Interstitial keratitis.....	2	none
Dendritic keratitis.....	1	1improved
Phlyctenular kerato-conjunctivitis	2	none
Gonorrheal ophthalmia....	1	1
Dacryo-cystitis	1	none
Episcleritis	1	1
Morax-Axenfeld conjunctivitis, severe, resembling gonorrheal conjunctivitis	1	1
Conjunctivitis, acute, catarrhal	2	2
Conjunctivitis, subacute, catarrhal	1	none
Incised wound of cornea...	3	3
Corneal contusion, with resultant keratitis.....	4	4
Incised wound of cornea, iris and lens.....	4	4
Incised wound of cornea, iris and ciliary body....	2	2
Traumatic intra-ocular hemorrhage, lime burn of cornea, vision LP, eye normal in 48 hours except for slight redness..	1	
Traumatic rupture of cornea lens with intra-ocular infection	3	1 2lost
Abscess of lid resembling carbuncle	1	1

Uveitis in an eye on which cataract was done 4 years previous	1	1 improved
Incised wound cornea, iris (with implantation of cilia ant. chamber).....	1	1
Perforating wound of cornea iris, f.b. vitreous...	1	1 (magnet extraction)
Extensive burn cornea, conjunctiva, both eyes...	1	1 not improved
Burn of cornea and conjunctiva	1	1 improved
Contusion of orbital structure other than globe, intense swelling	1	1
Acute glaucoma	1	Pain relieved
Slow healing wound after cataract	1	1
Anterior chamber filled with soft lens matter after discission	1	1 not improved
Hyalitis	1	1
Orbital cellulitis	3	3
Pain, tenderness and inflammation in an eye with phthisis bulbi.....	1	1 improved

CONCLUSIONS

Pain is relieved almost immediately in nearly all cases.

Of distinct value in corneal ulcer of nearly all types, particularly if seen early.

Of immense benefit in iritis and iridocyclitis as well as some forms of keratitis, in fact those diseases which are limited to the anterior segment of the globe. No benefit in subacute or chronic cases.

In acute suppurative conjunctivitis it seems to be a specific.

There is no hard and fast rule as to dosage; nearly every investigator has his own method.

And finally, from the experience of others, combined with the few cases I have, will say that the use of milk injections or some other protein is destined to have its place in our armamentarium—not as a panacea for all eye inflammations and infections, but in selected cases it will prove its great worth.

— R —

Duodenal Perfection.

H. L. CHARLES, M. D., Atchison

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

The incidence of duodenal perforation is much more frequent than is generally supposed. Happily, immediate recognition of this trouble by those associated with us, and their appreciation of the necessity for prompt abdominal section have been the means of preventing fatal surgical delay in nearly all of our cases.

Many of these patients fail to appreciate the gravity of the lesion from which they

suffer. Some of these patients are unfortunate enough to be far from home when perforation occurs, because duodenal perforation respects neither time nor place. Frequently it occurs after a long quiescent period during which time the patient has been feeling unusually well and has thereby acquired a false sense of security concerning the possibility of trouble.

All these cases give a history, obtainable if carefully taken, of indigestion or indefinite gastric distress, such as nausea, pain and vomiting. Do not always insist on a history of hemorrhage before making a diagnosis, because this accident really happens quite infrequently. Chronicity, hunger pain or a burning sensation relieved by ingestion of food or by a course of alkali treatment with a milk diet, may usually be brought out in the story of these cases.

Some patients will tell you, emphatically, when perforation of duodenal ulcer is mentioned, that they have been x-rayed and that no ulcer exists or that the ulcer has been healed. They do not know that seasonal incidence and periodicity are typical of the history of duodenal ulcer.

Sudden, sharp, agonizing, epigastric pain followed by collapse; a board-like rigidity of the belly wall; severe, excruciating pain extending to the left supraclavicular fossa, marked shock, dyspnea and increasing pain unrelieved by generous dosage of morphine are the usual symptoms which tell us that we are not witnessing a simple belly syndrome, but are confronted by a serious surgical condition.

A man came to the hospital for x-ray examination. Just before he was to be given the barium meal, he summoned the nurse and she found him in a completely flexed posture on the floor. He either could not or would not get up till he had been given three-quarters of a grain of morphine. He was operated within two hours and the previous diagnosis of duodenal perforation was confirmed.

Another man who had been sick about fifteen hours, was suddenly taken with excruciating pain. He had a mass in his right hypochondrium and was jaundiced. His previous history was so characteristic and the initial pain so agonizing that an immediate operation was advised. Laparotomy showed the gall bladder plastered over a duodenal perforation.

Subacute and chronic types vary only in their degree of severity. In these cases, if nature plugs the minute openings at once

with a flap of inflamed omentum, protective peritonization may at least temporarily avert disaster.

Practically all acute cases, if operated within five hours, recover. After a delay of twelve to fifteen hours, the prognosis is grave and, after twenty or more hours have elapsed, one may repair the mechanical damage but the patient is very apt to succumb to the inflammatory peritoneal involvement or death ensue due to a paralytic ileus.

Duodenal ulcer occurs more frequently in males, while gall stone colic occurs oftener in fleshy females. Duodenal ulcer seems to occur more frequently during the spring and fall months, while gall stone colic occurs without any reference to the seasons. The old idea of "no jaundice, no gall bladder involvement," was disproved years ago. Icterus may occur even coincident with ulcer.

Perforation of duodenal ulcer, as a rule, occurs in young and middle aged males, while gall stone colic appears oftener in older females who have had several pregnancies.

The break in the ulcer wall has, in our experience, often followed a hastily taken meal of large quantity; stone attacks seem to come independent of the ingestion of food and recur with no definite regularity.

It requires a very careful and minute history of any particular case in order to be able to differentiate a perforated ulcer from a ruptured ectopic gestation, an acute hemorrhagic pancreatitis, or an acute intestinal obstruction. A recent case diagnosed as ileus revealed, upon operation, a localized peritonitis caused by a subacute duodenal perforation.

Gastric ulcer is the more prevalent in females. Perforation occurs much more frequently in duodenal ulcer than in gastric ulcer. It is worth mentioning that perforation of a gastric ulcer is followed by a more severe peritonitis than perforation of a duodenal ulcer. To delay operating a gastric ulcer is, therefore, very dangerous. The acidity of the discharge accounts for the greater irritation and danger in gastric ulcer perforation. Peritonitis in gastric perforation is also more generalized in character due to the location and arrangement of the omentum; while in duodenal leakage the discharge passes downward to the right iliac fossa and becomes more localized. This is due to the close apposition of the transverse mesocolon and the pyloric end of the stomach.

Obviously, acute perforative appendicitis, on account of the above facts, is very difficult to differentiate but, fortunately, for the anatomical reason just stated, many cases are brought early for operation and their prognosis thereby favorably influenced. It sometimes happens that surgeons make a low, right rectus incision for a supposedly acute appendix and find a localized peritonitis but a practically normal appendix, the leakage having its origin above the appendicular region.

Ileus and mesenteric thrombosis frequently follow recent abdominal section. Ileus cases continue to vomit while, as a rule, duodenal perforation cases do not vomit. Absence of rigidity of the recti muscles and the presence of spasmodic pain help very much to clear the diagnosis of ileus. Tenesmus and bloody stools sometimes accompany mesenteric thrombosis, and depression is very marked.

Treatment of duodenal ulcer perforation consists of immediate high right rectus incision with exposure of the perforation and excision of the ulcer bearing area, whenever practicable. If this cannot be done (owing to the condition of the patient or to softening of the surrounding tissues) the opening must be closed by inversion with the next suture line and finishing reinforcing the area by an omental patch.

In operating for duodenal perforation we do not disturb other tissues more than is absolutely necessary. At times we drain the right kidney fossa. We always insert a split-tube drain in the right iliac fossa. Quite a number of foreign surgeons close without drainage. Possibly in this country we do not see these cases early enough.

Many surgeons in this country maintain that posterior gastro-enterostomy should always accompany the closure of a perforation in duodenal ulcer. We have discontinued doing this for several reasons. The procedure lengthens the time of operation considerably; it is not necessary for immediate relief and it is an unnecessary hazard imposed on the patient at a time when he is least able to cope with it; besides, exposure for posterior gastro-enterostomy may convert a localized peritonitis into a generalized peritonitis. When one lifts up the omentum to expose the posterior surface of the stomach, he removes nature's best protective barrier. Even though the omentum be replaced exactly the shock to other portions of the splanchnic area is always very serious.

Gastro-enterostomy is occasionally fol-

lowed by jejunal ulcer at the site of anastomosis. This has occurred only once with us. Posterior gastro-enterostomy was performed in this case because the size of the ulcer and the condition of surrounding tissues threatening ultimate narrowing of the lumen of the gut. Imagine our surprise, however, two months later, when re-operation revealed a duodenum of normal caliber but a jejunal ulcer necessitating the undoing of the anastomosis.

Undoubtedly excision of the ulcer bearing area is the ideal method of procedure in duodenal ulcers. The neutralizing effect brought about by gastro-enterostomy in order to cure ulcer is not nearly so effective as the more direct method of excision; and the latter method is certainly more nearly correct anatomically.

It is very important, when these cases leave the hospital, that they receive instructions regarding their diet. Moynihan states the most harmful of all habits is smoking and that many of the so-called ulcer attacks are really a toxemia from nicotin. Abstinence from tobacco relieves them completely.

—R—

"Sterility"—Its Etiology and Some of Its Sociological Aspects

M. C. MARTIN, M. D., Newton

Read before the Harvey County Medical Society, May 5, 1924.

For our present purpose, we shall discuss sterility from the gynecological standpoint only; that is sterility in the female—leaving male sterility to the Urologist for diagnosis and treatment. In the discussion of female unfruitfulness, we shall narrow our discussion to the etiology of this unfortunate condition and to some of its sociological aspects.

In entering upon a discussion of the etiology of femalae unfruitfulness, one is brought at once to the thought that there are not only various degrees of sterility, but also various kinds of sterility. In fact, one's very definition of sterility admits of various interpretations, and the term must be used in the broad sense. The more I think of it, the more I like the word "unfruitfulness" instead of "sterility." I would like the distinction to be made that, whereas, sterility is merely an inability to conceive—unfruitfulness includes all those conditions which render the woman unable to produce a living child.

So upon this broader basis of unfruitfulness rather than sterility, I am going to try to elaborate a classification of its eti-

ological factors, assuming at all times that fertility of the husband has been previously demonstrated.

Congenital sterility is that due to some condition existing in very early life or at least beginning at puberty. Primary sterility is that of a woman who has, while living with a fertile husband, never conceived. All congenital sterilities are therefore classified as primary sterility, but a primary sterility may have originated too late in life to be called congenital. For example—an infection early in married life which happened to occlude the Fallopian tubes before a pregnancy occurred. Acquired sterility is that in which the woman (previously fertile) contracts some condition which renders her thereafter unable either to conceive or to carry a pregnancy to its successful termination.

Acquired sterility can be either primary or secondary—depending upon whether it happens to a patient before or after one or more living children are born to her.

It is manifestly impossible to give a complete description and classification of all the causes of sterility in all its forms from the pathological standpoint. I shall therefore attempt to give a working classification from the clinical standpoint.

First, we must remember that to produce a pregnancy the spermatozoon must travel inward (or upward) and the ovum must travel outward (or downward) until they meet and have room to grow. Therefore any conditions which impedes the progress of these travelers at any place in their pathways prevents conception. This factor is really the most nearly all-inclusive of all our causes. To this classification belong many, many different conditions.

First and foremost, certainly, are the constriction types or occlusion cases, which include all the infections (venereal and non-venereal) which tend to close up the Fallopian tubes, the lumen of the uterus (endometritis), the cervical canal (endocervicitis). These latter two perhaps depend to a greater extent upon the thickening of the mucous lining and the great amount of muco-purulent discharge than to any real occlusion. These factors operate to prevent the proper embedding of the ovum, therefore preventing pregnancy to continue. The various retro-displacements really fall into this class, due to the endometrial changes involved; likewise the presence of fibroids which mechanically crowd out the newly fertilized ovum.

Under the head of obstruction we must also include the various degrees and kinds of vaginal atresias, and abnormally rigid hymens all of which operate to merely prevent proper insemination. As these latter conditions are amenable to treatment, as are also some of the neurotic elements (vaginismus for example), we may say that they confer only a relative sterility upon their victim and that the outlook for her future fruitfulness is good if the obstruction to proper insemination can be removed.

Cervical stenosis, infantile uterus and its twin sister, ante-flexion of the uterus, likewise cause a relative sterility. Ante-flexion is rapidly becoming classified by all as really a developmental defect rather than a true displacement. In this sense it is like the infantile types. In each case the history runs uniformly true to form—first a pregnancy aborted at about the second month. Then very often a second pregnancy can be carried to full term. The first pregnancy seems to enlarge the uterine cavity to such an extent that the second pregnancy is not crowded out. Here, the sterility of ante-flexion is due to the underdevelopment of the uterus rather than to the angle of flexion.

Other malformations and anomalies, such as congenital absence of ovaries, uterus and tubes, of course cause absolute and permanent sterility. But such conditions are too rare to warrant any discussion here.

Second in importance to the occlusion or constriction types, are those which can be classified as factors which diminish or suspend ovarian activity. In this class we find the severe mental and emotional shocks which bring on premature cessations of the ovarian function and early menopause. Nutritional defects, like the long continued lack of vitamins in the diet, and lack of mineral salts. Obesity has long been recognized as a very potent factor. Fat women are notoriously inclined to amenorrhoea and sterility.

X-ray exposure has been blamed for many cases of sterility—perhaps justly. However, our own technician conceived after having been exposed to x-ray for a number of years. True enough, she became eclamptic. Possibly the x-ray was responsible for that. Recently, Belot, the Parisian radiologist, has pointed us to a series of twelve women radiologists who had each worked with the x-ray for from one to nineteen years and who had produced thereafter from one to seven children each. Vaginal acidity comes in for its share of the

blame for some cases. Alkaline fluids favor the long life of the spermatozoon, but acid fluids kill them quite readily.

There are many lesser causes which we will merely mention. They are alcoholism, low grade morality, physical and mental incompatibility, late marriages and marriages of blood relatives. Age is a factor, of course, but sterility is certainly not hereditary.

Gentlemen, I apologize: I realize the foregoing joke is hoary with age—but I just had to spring it.

SOCIOLOGICAL ASPECTS

Marital unfruitfulness has always been considered by a great majority of the world's people to be a great misfortune. In Biblical times it was considered a curse. In ancient writings we read of the miracles performed in order that a certain woman might conceive.

A fruitless union is indeed one of Nature's saddest tragedies. Sad enough in the earlier years of matrimony, it is doubly so in the years of decline. A childless couple in their dotage present a picture of almost wasted lives. They leave nothing in the world because of their having lived. No matter how great an estate they may leave—no matter how large a circle of friends—no matter how great a range of influence in business, religion, or politics—when the Grim Reaper takes their lives—all is taken. There is nothing to perpetuate their memory—no one to use their estate, no one to carry on the work they started, and alas!—no one to mourn their passing, very long at least.

The state of being childless as a rule weighs less heavily upon the man than upon the woman. He goes out into the world each day—seeking his home only for rest (or food) at the end of the day. The wife is (theoretically at least) at home all day. Her natural maternal instincts (and all women have them whether they are willing to admit it or not) rebels against the monotony of her childless home. Seldom is such a home a happy one. She seeks, therefore, diversion in the form of social activities and gaiety of all sorts as a substitute for that something which she craves and that she needs to stabilize her—namely, the love of a child. But one is quickly sated with the social whirl and continually must seek more and more exciting things. The constant round of social festivities has one and only one inevitable result. That is, a breakdown.

We hear much of "Woman's Sphere"

these days—and always as though her sphere was something disgraceful and degrading. I am still old-fashioned enough to believe that the salvation of our very civilization depends largely upon how well our women fill their God-given sphere of maternity. When one reads statistics, he finds out that the very foundations of our American nation are in danger from the fact that among our native-born white people, the birth rate is decidedly insufficient to keep up the race. To a large degree the educated and cultured classes are today childless. The very people who should be helping formulate the thought of our next generation are sitting back in the cushions of their Rolls-Royce pinning pink ribbons on some kind of an imported dog instead of pinning a diaper on a fine American baby.

To a large degree those factors which one would think should disqualify for parenthood, namely, poverty, ignorance, faulty hygienic surroundings, inefficiency, vice and degradation are the very factors which seem to accompany large families. Perhaps the poverty may be, in these days of high obstetrical fees, a result of large families. But certainly all the other factors I mentioned cannot be so classified. There is a great decrease in marriages and an increase in divorces in America. There are in our country nearly eighty times as many divorces (from a given number of marriages) as in England, and nearly three hundred and fifty times as many as in Canada.

During the last one hundred years in the United States, statisticians tell us that the per cent of childless marriages has increased from two per cent (one hundred years ago) to over twenty-five per cent at the present time. How much of this is due to the nefarious propaganda of our various Birth Control Societies one can only surmise. With their well worded witticisms like "Woman's inferior status," "Man's brood animal," "A dominated weakling," and the like—it is no wonder it appeals to women who are the "unwilling mothers" and who have felt the "inner urge" calling loudly for a "wider freedom" to develop "fully rounded lives."

It is to be hoped that the modern loss of regard for maternity is only a fleeting experience in our national psychology. It is to be hoped that the realization of a weighty obligation to our future American civilization will take hold of society. It has been very aptly said that "great nations are

not destroyed—they commit suicide." It is my opinion that the present wave of interest in child welfare all over the country is a hopeful sign. It, at least, shows a return of interest in the child. It shows that we are trying to do something for the child. And certainly there is no surer way of serving our nation than in trying to make conditions such that the pathway of our children shall be beset with no pitfalls.

An old man, going a lone highway,
Came at the evening, cold and gray
To a chasm vast and deep and wide.
The old man crossed in the twilight dim,
The sullen stream held no fear for him;
But he turned, when safe on the other side,
And built a bridge to span the tide.
"Old man," said a fellow pilgrim near,
"You are wasting your strength by building here,
Your journey will end with the ending day,
You never again will pass this way.
You've crossed the chasm deep and wide—
Why build you this bridge at eventide?"
The builder lifted his gray old head—
"Good friend, in the path I have come," he said,
"There followeth after me today—
A youth whose feet must pass this way.
This chasm that has been as naught to me,
To that fair-haired youth may a pitfall be;
He, too, must cross in the twilight dim—
Good friend, I am building this bridge for him."

————— R —————

The Drug Store and the Doctor G. B. MORRIS, Garden City, Kan.

Read before the Finney County Medical Society, June 25, 1924.

The time was, and not so very remote, say, twenty or even thirty years ago, when the graduate of a reputable School of Pharmacy was taught that he was to be a necessary adjunct to the Medical Profession.

He was also led to believe that when he entered business for himself, most of his business was to be derived from the doctor and through his influence.

His instruction, while it embraced many things also taught the young Medic, was very different along certain lines. His studies included Pharmacy, Chemistry, Pharmacology, Botany, Mineralogy and laboratory practice; all being subjects relating to the compounding and dispensing of drugs upon the written prescription or advice of the doctor.

Therapeutics was touched upon but lightly as well as Toxicology, Physiology

and Anatomy; while Diagnosis was not in his curriculum.

Such were the conditions then, and are perhaps the same today—the Pharmacist was taught Pharmacy; the Doctor's field was not invaded; nor was it supposed to be; for such was ethics.

Today, it appears that the Druggist must sell everything and anything in order to make a living. The Druggist turns caterer, restaurateur, musical merchandiser, pseudo jeweler, near dry goods merchant and grocer; selling everything from a jew's harp to a saw mill; cavorting in hardware and cutlery being considered sharp business; selling handkerchiefs and collar buttons and hair pins. Why? because merchants in these other lines have got into the drug business and we are all doing the same—one grand big department store idea.

One day not long since, I observed a grocer's window containing a stack of a well-known breakfast food and pyramided on top of the stack and stuck about all over it was a lot of packages of barium carbonate labeled rat poison, which a druggist would sell and dispense with all the precautions usually attending the sale of any ordinary poison or deleterious substance.

Maybe the grocer was aiming to convey in some subtle manner that the breakfast food was as bad as the rat poison and was taking this means to warn the public. If this was not the case, reason fails to establish a logical excuse for making such an incongruous display of merchandise.

Asperin is on sale at the lunch counters; department stores sell a brand of peroxide that may with safety be displayed in a hot sunny window, heat nor light seems to affect it; a newsstand sell bandages and emergency dressings and I doubt not that the blacksmith bootlegs iron tonic.

With some druggists, the ethical side still has a firm hold and we consider the Doctor's prescription the "Heart of the business" but often the cardiac depression is frightful.

The Drug Store and the Doctor should go hand in hand, the one depending on the other. A drug store today sticking strictly to the drug business, and these are rare, cannot get along without the doctor. There are a few strictly ethical drug stores, situated in large cities and fortunately located.

The Doctor may or may not depend on the Drug Store; he can carry his own remedies. He can stock his office with everything reasonable in price and stable

in nature, leaving for the druggist the high priced articles and those less frequently in demand and also those articles the sale of which is regulated by strict laws like narcotics.

And who is this druggist that he objects? Four hundred and sixty years B. C., Hippocrates, the descendant of the fabled Aesculapius was born on the Island of Cos, then a center of Greek learning and the seat of a Medical University.

Hippocrates is sometimes called the father of European medicine although Dr. Alexander Wilder says that there was no father of medicine; that the science is as old as the human race. Let us then suppose from that statement, that, after the first case of colic resulting from eating green apples in the Garden of Eden, there was a frantic search for a remedy which resulted in the discovery of the fig leaf, which, no doubt, gave someone the idea of marketing the popular remedy known as Syrup of Figs.

The oath and law reputed to Hippocrates are the essence of ethics and are largely adhered to, to this day. Hippocrates was revered for his benevolence as well as his genius.

Twelve hundred years B. C. throughout Greece, temples were erected to Aesculapius, the priests of which were really physicians and the temples hospitals and medical schools.

The healing art belonged to the sacerdotal class and was imparted only to the select or passed from father to son.

"Medicine being an empirical science, cannot be perfected by one nation or in any particular epoch. Its expansion depends on the progressive development of the human race."

Nine hundred years before the birth of Hippocrates, a Hindoo work was written dealing with obstetrics, general pathology, insanity, infants' and venereal diseases. The origin of Hindoo medicine is lost in remote antiquity. Medicine was a well-founded science during the first dynasty of ancient Egypt, and has been held in greatest honor for three thousand years.

"The first physicians of Rome were Greek slaves. The science culminated at Rome in Galen, whose writings consisted of five hundred treatises."

The ancient physician was an apothecary, one who sold drugs and compounded prescriptions. In some European countries, apothecaries are also licensed practitioners; rarely are the two combined in this country.

The tendency then, on the part of the modern physician to dispense, is merely an atavism.

Herodotus states that the Babylonians had no physicians. Their practice was to place sick persons in the public square and all persons passing by were expected to ask the sick concerning his malady. If the person making the inquiry had ever himself had a similar complaint, or knew of anyone else that had suffered from it, he must give advice to the invalid, telling him of such remedies as had been found beneficial.

This practice no doubt gave someone the inspiration for the song entitled "Everybody's Doing It Now." introducing the popular melody, "I Don't Want to Get Well." It is perhaps the hereditary Babylonian instinct in some people who are always telling others what to do for the cure of their ills, whether there is a physician on the case or not.

Permit me to digress at this point and in a facetious manner to expand upon the Babylonian instinct under the caption of: "I'll Tell You What to Do."

It is to be hoped that you will find herein many valuable pointers for your practice and that you will use this information to the best of your ability; for, the Busybody's Prescription is a panacea, a sovereign balm.

If you are ill from any cause whatsoever, it is your own fault, for your friends and well-wishers on all sides are telling you what to do.

Follow this good advice, they followed it; and you see they have been cured out sound and well.

So many people follow the course of their own inclinations and rush to a Physician or Surgeon and have the trouble cut away instead of following the advice of friends who are ever ready to hand out healing information.

Some people are very proud of their experience on the operating table: the after effects afford such excellent topics for conversation. There is nothing so interesting and illuminating as someone's interior decoration, luridly described at the luncheon table.

It is so deleterious to follow one's own inclinations, but if we must rush to someone, let us go to the sculptor or the expert harpoonist or to the friendly busybody for free advice; never to the Doctor or Surgeon, who has expert knowledge, they might want to play with us and get us in bad.

I have arranged here some of the valuable pieces of advice that is often given to

friends in order that they might regain health, youth and beauty. Considering that this advice comes from the bottom of some friend's heart, you should heed and follow and you will remain intact for some time to come and there will be no need of mixing up your circulation by adding embalming fluid to your corpuscles.

GENERAL HEALTH RULES—DO'S, DON'TS AND DOUGHNUTS

Don't go to bed very often and never two nights in succession. If you feel an irresistible impulse to retire, stay up till 12:30 and then go to sleep with one eye open or with an eye opener.

Never pound your ear or saw wood in your sleep; it annoys others and besides, it is hard on the nerves as it jiggers the diaphragm and causes the spleen to become diaphanous and hastens the dialysis of the gall.

Don't go to bed on an empty stomach. Load up on sardines and cheese and take a little exercise like walking on stilts or flying a kite.

Always keep yourself well oiled. Drink copiously of any good oil, like vaseline, lard oil, machine castor, three-in-one or cylinder, according to your taste. Whenever you pass a hydrant, drink lots of water; drink water every time you turn around—turn around often; this keeps the water in circulation. If the water and oil do not mix, rub the left ear with a fresh peach leaf and drink hot mustard.

Authorities do not agree on the water theory anyway. Some say, "Plenty of water, more water," while others caution us not to go near it, neither externally nor internally. Use your own judgment at your own risk.

Whenever a friend says "Take a pill," always take two or three; there is more kick in it and it shows your interest in his advice.

Baldness may be cured by mixing equal parts of soft soap, powdered egg shell and charcoal and rubbing this mixture on the pump handle. This is an old family remedy, discovered before geraniums were put on hats.

Headaches, insomnia and hysteria may be instantly relieved by anointing your pet dog with asafoetida and turning him loose in the house. This will effect a cure after everything else fails. If you do not have a pet dog, a cat makes a good understudy, or the goat; but do not anoint the goat as he has enough. The reason that this is such a marvelous cure is due to the

fact that the commotion and excitement raised increase the blood pressure in the patient.

When a friend pours out his sympathy and tells you that your liver is running wild, don't pamper your liver; go after it; take two bottles of your friend's remedy. He knows its your liver; everyone knows its your liver; look at the tracks you make in the snow.

If you are dizzy, if gold fish swim before your eyes and aces and spades appear as dim objects on the horizon, your digestion is two days behind schedule and you are losing the sense of co-ordination. Go immediately to a hillside sanitarium and chew mullein leaves for three weeks, soak your feet in cranberry juice and read Aesop's Fables.

Don't walk up to a friend and say, "I have catarrh"; make it worth his while to prescribe; say it in hollow and sepulchral tones; keep your mouth open; take a deep breath and talk through your nose and close one eye. It would materially assist in the diagnosis for you to cough violently and hold your hand in the region of your third rib as this indicates the chronic stage. Your friend will rise to the occasion and tell you to "Kill the germ in three minutes" thus: "Fill a barrel with a ten per cent solution of sauer kraut water, colored pink; recline on your back and allow the solution to run into your nostrils by means of a short hose. Imitate as near as possible a porpoise at play on the beach." If you strangle to death, you will cure the catarrh germ anyway as they cannot exist in any but healthy and normal bodies.

Your friend will also tell you to take a blood medicine, the kind that Uncle Zeke used to take every spring, or to swallow, on a moonlight night, a bolus made of sulphur, sage and wormwood, and to gaze at the north star through a pipe stem. This is an infallible remedy, but must be strictly carried out and as secretly as possible for it is liable to jeopardize your insurance policy.

If you wish to gain weight, the remedy is simple; eat everything under the sun, moon and stars, including raw carrots and ripe onions. Overeating acts like an antidote. Browse frequently on dill pickles and drink milk. Walk fast for two days, then fast two days; eat, drink, sleep and be merry and count your calories. Once in a while roll down hill and crawl back up on your hands and knees. This promotes appetite and is considered real sport.

If you desire a thinness of aspect, eat only such things as your nurse prescribes, and if possible decline it all occasionally, then when the opportunity presents, slip over to the village and eat five pounds of nuts, a quart of ice cream, plenty of candy and a few vitamins.

Never walk; always ride, for walking reduces flesh to mere fat; and fat is what your system is trying to get rid of.

If you have shooting pains in your head, if your back aches and your appetite is all gone, only the frazzle left, and if your heart beats only about twice in twenty-five hours, hunt up some friend who had a prescription given him ten years before for rheumatism or gall stones. Get this prescription refilled; it will fit your case perfectly. After you have tried it out, pass it along to someone suffering from Bright's disease or scurvy, as it works well on any minor ailment regardless of symptoms, and the more people who get a try at it, the more humanity is benefitted.

Never use your friend's rheumatism remedy for cleaning windows or for removing grease spots from clothing as you would be cheating the master cleaner out of a job.

Corns and bunions can be removed over night by binding on a slice of raw potato or a bruised peach leaf. Some people recommend wearing wooden shoes or tight ones in order to smother the corn out. This might, however, cause the corn to break out in some other place.

Really, the best way to cure a corn is to stand pigeon toed, but this is likely to cause one to become knock-kneed. Knock-knees can easily be remedied by standing bow-legged; this will in time bring back the corn, but if the entire process is repeated often enough, the corn will become discouraged and leave the locality.

The last piece of advice that friends give, and one that is seldom heeded is, that when you bump your shin or lose five dollars on a ball game "to consult a doctor."

The reason that most people hesitate about going to a doctor with their ailments and maladies is that they are afraid that he will prescribe medicine to be taken or a strict course of action to be followed, and so many people dislike to take medicine or to follow instructions; they would rather let nature take care of the case unless they find a friend who has made a lifetime study of "Telling you what to do."

This is not aimed at anyone in particular, but this method is used merely to bring out more clearly the fact that we all, more

or less, are inclined to be physicians practicing without license and without exact knowledge, ignorant or indifferent as to what the result might be to those who follow our free advice. The moral: Is there a little doctor in your home?

For fear that your patience is exhausted, let us return to the subject.

When and how was the druggist permitted to enter the scene; where did he get on? I made an honest effort to obtain from the University matter relating to early Pharmacy, but they were so busy down at Lawrence turning out Medics and Pharmics that they could not spare me the time.

Failing to get authentic information, let us then suppose a fable: Perhaps one day way back in the foggy past, some old Aesclepiod was busy in his cave boiling down a decoction of Loco to make a potion for the King of the Tribe.

His son or perhaps a crony was seated on a rock watching the process and wondering why the Old Man did not tie up his whiskers to keep them out of the stew, when a commotion was heard at the mouth of the cave.

A patient was without wanting to be mesmerized. Fearing that the pot would boil over during his absence and, being decidedly loath to lose the fee and have the patient go to the *kiroprak* down the gulch, the old man thrust the stick into his companion's hand and commanded him to "stir it" and rushed to the clinic.

Thus perhaps was the origin of the first Pharmacist, an apprentice to the honored profession.

Granting then, that there is a division of labor between the Pharmacist and the Doctor; that the two professions are separate though related, the Druggist then has his rights as well as the doctor.

The laws that have been enacted surrounding Pharmacy certainly show the druggist that the two professions are separate, while the fines and penalties imposed for violations of the statutes make the matter perfectly clear. The druggist is tied up, sewed up, and even bottled up in many instances and, when a new tax is to be levied or a ban or restriction placed, it always seems to try the drug store first.

It requires several thousand dollars to stock a drug store and at times even the Pharmacist with a very large stock is embarrassed on account of not being able to furnish some important item sought by the Doctor.

How then, could an office stock fill the needs of a busy physician? He must at times rely on the Druggist.

The graduate Pharmacist spends perhaps as much time and money on his education as the Doctor. He invests as much again in a stock and hangs up his sign: what happens?

The average burden of expense in conducting a drug store is 27.6%. It costs the druggist twenty-seven cents to sell an article for a dollar. He pays for the goods out of the balance, the residue is profit.

To illustrate: the average bottle of patent medicine costs the druggist at the rate of \$8.00 per dozen or sixty-seven cents; he adds fifty per cent of the cost or thirty-three cents and sells it for a dollar.

This transaction nets him thirty-three cents and one-third per cent gross profit on the selling price. With a burden expense of twenty-seven and six-tenths per cent, his net profit is only five and seven-tenths per cent; that's not robbery, still there are persons who claim it to be and who howl to high heaven and bray at the pale moon.

So much for patent medicines. Toilet articles are in the same class as far as profits are concerned, providing the manufacturer stamps a resale price that will yield that profit. But some manufacturers are hogs or are related thereto.

Consider pharmaceuticals a moment; we have a demand for a certain preparation; we buy a limited amount say, a pint or two; the demand increases, we reorder a gallon in order to be able to supply the demand. This moves well for a time then the demand ceases—some new mixture has taken its place, a new love has been born; Jones of Dubuque has got out one with two more grains in it and whereas a man could take Smith's and turn flip flops, a fellow could meet himself coming back after using Jones'.

Our half gallon left on hand is a loss even if we have added the Dutchman's fifty per cent and doubled the cost. No profit is made until the last drop is sold.

It seems that we must be continually stocking new preparations to be tried out and abandoned. Stuff of this sort accumulates in a drug store.

Pills with adamant coating that wouldn't disintegrate in a thousand years; elixirs that are all precipitate, tonics, mixtures and a lot of things that were once considered valuable and of repute, now relegated to the junk heap, a loss.

We could make a barrel of money selling salts and calomel at prevailing prices if we had the demand in sufficient volume, but the public is not taking calomel and salts for diversion.

Another important point not to be overlooked is Biological Theraphy, which is recognized as one of the greatest achievements of modern medicine.

There are few physicians today who do not use one or more of the several serums, antitoxins and vaccines in regular practice; and how many physicians are there that care to carry a supply in the office and on ice, as our State Board of Health requires? Here is at least one instance where the druggist serves a purpose.

These products if sold at list or Board of Health prices yield only twenty-five per cent which is less than the average cost of conducting a business. The public is not the buyer in the case of biologicals, it is usually the doctor and there is little room for the druggist to counter prescribe in the serum business. It is better to sell to the physician than to the patient owing to the extreme cost of these products. They are but another of the several humanitarian items handled by the druggist.

How many physicians have ever submitted to a druggist a list of the biological most frequently needed by him; at least those that could be classed as staple. The druggist is handicapped in this, he cannot stock them all, even if they are exchangeable and he invariably has on hand Acne when he should have Furunculosis, and at times he is expected to have on hand that which he never had.

Oh doctor: could you afford to amputate a limb, cut out an appendix, attend a confinement or watch a case of typhoid because of a howl over the fee? Unless it was a case for benevolence or a humanitarian act?

Fees and prices are in most cases prone to criticism especially after the patient has absorbed the physicians advice, drunk up the druggist's medicine and passed on to recovery. This is not an argument for taking undue advantage of anyone in the matter of prices, it is to make the fact plain that there are certain conditions that must be met in the successful operation of any business.

It is perhaps the tendency on the part of the Doctor to dispense his own remedies that has caused the rise of the prescribing druggist, or it may be due to an overcrowded condition in either profession.

However, this condition should not exist, druggist or doctor.

Now I should not be misunderstood in this; a doctor is bound at times to dispense, in his office and more especially on his visits and there are certain private ministrations which are best tended to by the physician; but the doctor should not have a string of customers running to him for some more little brown pills and a bottle of this and that; his logical prey is a patient—not a retail customer.

Neither should a druggist have a bunch of patients running to him for the treatment of rheumatism, neuritis or what not from liver trouble to flatulence; his legal prey, I say legal, for they are regulated by laws, his legal prey is a customer with a prescription; not a patient full of symptoms. Granting, of course, that the two professions are separate.

I say there is no reason or excuse for the prescribing druggist unless he be a graduate in medicine notwithstanding the fact that some one may have tickled his vanity by telling him that he knows as much as the doctor. If a doctor is unable to get all of the symptoms and full confidence of the patient, how in the name of Paracelsus is the druggist going to get them?

There should be no spirit of retaliation on the part of the druggist against the doctor. The commercialized druggist may retaliate against the department store, the grocer or other merchant who invades his supposed domain, but the druggist who completely turns down the doctor has lost the spirit of his profession and should style his business by some other title.

The doctor who is prescribing regularly is entitled to the best price the druggist can obtain for him for anything he wants for his practice; but the doctor who happens now and then to write a prescription, making the druggist merely a convenience, should not expect much in the way of concessions. But during these days of keen competition, the supply houses are numerous, the doctor can easily stock up and become the greatest substitutor without much effort.

The modern slogan, "Try the Drug Store First" suits me for many reasons. It is intended that it shall be interpreted to mean: be loyal to your druggist; he is more than a merchant; he is a valuable asset to the community; buy your wares from him rather than from the person who uses unscrupulous methods of competition against him. But to many who look through smok-

ed glasses it reads: "Everything Under the Sun."

I am a firm believer in the creed of a western store that advertises to its patrons as follows:

"You may depend on it that we have exercised all our care and knowledge as pharmacists to give you exactly what your doctor called for in his prescription.

"This is a matter concerning you, your doctor and ourselves, and we appreciate the importance of our part in it.

"Your doctor has found that you need certain drugs in certain proportions to help you. In this prescription he told us just how much he wanted of each for your particular case, and how he wanted you to use the prescription.

"We have followed his directions to the letter. It is your own personal prescription, designated and compounded for your own special requirements.

"So naturally, we trust that you will be benefitted by its use; and we appreciate your confidence in us."

I believe fully in the foregoing and, like Macawber, "am waiting for something to turn up."

I have never felt qualified to diagnose or prescribe and I assure you that I feel more elevated professionally to pour three ounces of HVC or Hydras into a bottle and write the doctor's direction, even if that is not compounding, than to wrap up a bottle of Dinkenhams Compound or a bottle of Wine Corduroy.

The manufacturing pharmacist has taken much from the old school druggist in the way of relieving him of making many preparations and he has added much in the way of elegant and standardized preparations.

The patent medicine manufacturer has taken more from the doctor and he has added but little to the drug store profits, compared with what they might have been, had the druggist compounded prescriptions instead. Maybe it is exploitation of this sort that is considered as part of the advancement of the human race.

Since the secret of medicine is out and no longer in the control of the select and the priesthood, self medication has become a fad with some; with others an obsession. With a few it is an economy when they go to the doctor for medicine in an effort to eliminate the druggist; or when they go to the druggist hoping to save the doctor's fee.

The medical profession would certainly

be busy if every case of headache or some minor pain required a consultation.

Thank the druggist then for relieving the doctor of the petty things, for the druggist's life is made up of jots and tittles.

The high prices charged for drugs is often the topic for discussion. The druggist is often considered a robber although he is guilty of many charities like paying rent on a public telephone, furnishing an empty bottle, wrapping up Jones & Co's. merchandise, running errands and performing some minor surgery like giving a man a cork to fit a bottle of turpentine purchased at the lumber yard. It is the druggist's own fault however, for he started the free service idea in order to attract more trade until now the public expects it.

Considering his investment, the burden of his expense and the service he renders the public and community, keeping open early and late, his charges in most cases are reasonable. Why then, deny the druggist his charge and not seek to regulate the fee of the doctor if both be reasonable.

A little friendly call now and then by the doctor, a survey of the druggist's stock and an occasional hint as to the preparations he would like to prescribe as well as his stamp of approval on any preparations or his disapproval, would help the druggist immeasurably for, without the doctor's approval such preparations would be valueless to the druggist.

A little less free lancing on the part of the druggist, would help the doctor and would be manifestly better for the community.

Let fees and remunerations then go hang, It is the overhead expense that regulates it, Sure, for did not Hippocrates state long ago, "Life is short and art is long"
"Similia similibus vrantur."

— R —

Apprenticeship

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Read at the regular meeting of the Norton-Decatur Medical Society, April, 1924.

This paper is not intended to be of scientific interest or preparation. Others present, because of their more mature training and observation, are more qualified to present such dissertations to a medical gathering. The writer, however, has noted a tendency in the meetings of medical societies to overlook the philosophical aspects of medical practice. But both phases have

a place in these meetings. This paper will consist of a few philosophical speculations from a watcher on the side lines.

I first came in contact with the Medical Mossback about six years ago. Were Noah Webster living, he would define a Medical Mossback as "a member of the medical profession who apologetically says he can't, but knows d— well he can." The species is prevalent over the terrestrial globe, and some of the younger observers even go so far as to acknowledge that a great deal of good is done by them.

As with other strange species, I first looked at them askance. With two diplomas, a certificate of training from one of the largest teaching hospitals in the country, their single diploma, of large size and ornate Latin script was rather beneath me. Although I knew that the Medical Mossback existed, just as I was aware of the Big Dipper and Orion, they seemed remote and theoretical.

The first of the species I encountered was my father. Other notable specimens that I have met since are many, among them being Dr. K—, Dr. L—, Dr. C—, Dr. T—, and even an old classmate, Dr. Bill D—, bids fair soon to be numbered among them. I had been brought up to regard medical practice as consisting of reception rooms furnished in mahogany furniture and deep-piled, velvety rugs, offices furnished in solid oak, tiling and enamel; office girls of Annette Kellermann figure and Rembrandt complexion; of multitudinous laboratory tests; intricate intravenous specific therapy. Obstetrics in the home was only for mid-wives and the training of medical students. It was up to us educated doctors to show the back numbers a thing or two, and bring the light into their haphazard, benighted lives.

My first bit toward the education of the Mossback was done on my father. It was almost my first call case—a boy of sixteen, with a regular afternoon temperature, higher each day, toxicity—all of the symptoms of a typical Oslerian Typhoid. Promising the parents a discouraging session of six to eight weeks, I succeeded in impressing them with the gravity of the case. I permitted my father to accompany a real medical man and watch him work. With due humility he followed me, and humbly asked permission to make a cursory examination, a request which I magnanimously granted, explaining to him, the while, that in several days the Widal test would become positive—a thing which he indeli-

cately refused to believe. However, after I gave him a good lecture, he subsided. On the following day he volunteered to stop and see the case on his way to the office. With misgivings I gave my consent. Late that afternoon, I hurried over for a specimen of blood for another Widal. The boy was sitting up; there was a sparkle in his eye, snap to his smile and a sting to his grin. A large wad of dressing was in his left axilla—my benighted father, refusing to wait for a Widal, had found an axillary abscess, lanced it, drained it, and shot a durned good diagnosis of typhoid fever all to thunder. Luckily for the firm, the family transferred their affections no further than to my father. It reminded me very much of woodshed tactics so painfully practiced by male parents of yore.

Other incidents followed—ludicrous, embarrassing, serious. The old governor almost always came out apologetically ahead; contrary to all textbook ethics, he rode his hunch. I even saw him leap from one hunch to another in full gallop. His abject apologies almost drove the sting of the half-veiled twinkle in his eyes from my perceptions—but not quite. But it was wrong; this coming into a sick-room, glancing at the patient, and telling me, "Son, your patient is going to die." And most times, a seeming-healthy-appearing patient accomodatingly passed away to prove him correct. On the other hand, patients would stop at their next to the last breath and swing back into the Road to Wellville simply because he contradicted my gloomiest of prognoses.

As my practice and medical acquaintance widened, I met others of the same genus—shy, tired men who would sidle into our brilliant midst, effacing themselves as much as possible. On rising to speak, they invariably prefaced their remarks by such an unnecessary statement as, "Of course, I am only a country doctor, but it seems to me——." No need to say it, we could see it. To my surprise, they were allowed to speak; still more surprising, they were gravely listened to, *and even applauded!* What a shock it was when I learned that one of these Mossbacks had brought Harding, the great Lincoln, and even greater than these—myself—into the world, performing this extremely dangerous feat in a humble home, without a sterilized gown or rubber gloves. My sense of values began to crumble at its foundations. I determined to find out why these "has-beens" were still allowed to disgrace the

noble profession. Here are a few of the results of these observations, made by one who is in the second stage of his medical birth—the first, irregular pains and fright having resolved themselves into a regular systematic effort; the third stage seen coasting over the horizon.

The main difference between the education of the Mossback and the modern doctor (physician as he prefers to be yept), is that the former was taught to use his eyes and drugs, while the latter is taught to use his hands in the manipulation of test-tubes, and to pooh-pooh all drugs except salvarsan and morphine.

The Mossback, whom we will from now on designate as the "Old Doctor," entered medical college after a high school or equivalent preparatory course. He was taught to roll pills, to give an enema with his own hands, and was drilled in *materia medica*. His much-ridiculed "gunshot prescriptions" were efficacious. I know the latter to be true, for, despite my ridicule of them, I was so impressed with the efficacy of my father's prescriptions that, I secretly filched most of them for my own future use. The Old Doctor's course lasted from three to four years. After medical school days, he set up his office, often living in a back room. He was his own janitor, bookkeeper, chambermaid, groom and driver. On long drives into the country, the steering apparatus was much less complicated than it is on the modern Ford, consisting as it did of two leather reins loosely draped over the dashboard. The accelerator was simple—to "step on 'er," it was but necessary to wave a whip over the dash board, click the tongue and utter an occasional cuss word. The attention was not diverted. Old Doctor could study the little angles of the cases he had seen during the day, and, as the peace of the twilight enfolded him, he could spend long hours meditating upon the human frailties and could shape his ideals much more clearly than can be done even with much greater effort now. Small wonder he learned to know human foibles, to get close to his patients, and to love them as a guardian and confessor. He was a friend, a counsellor, a part of the simple lives of his patients, unstirred as they are now by jazz, heartrending, unfickle movies, automobiles and petting parties. Often his reward was a sack of spuds ceremoniously dumped into the wagon box, or a joint of ham or side of bacon. Five-hundred-dollar fees came in small sections, each preceded by a call.

Small wonder that the Old Doctor developed baggy trousers, a tired stoop to his shoulders, and kindly crowsfeet around his shrewd eyes. The reward for an all-night vigil at some little tot's bedside or tug of war contest with an obdurate stork was a life saved or begun, not a seventy-five dollar fee, two per cent off for cash. The Old Doctor's ambition was to cure the sick, his painful necessity was to collect enough to pay a deposit on an occasional meal ticket and new suit. Sometimes by a slip of rigid destiny, he even scrapes enough together to send the wife and toddler to Kansas City on an excursion. But never did he fully realize what a Mossback he was until said toddler grew up and came home from Medical College and explained it to him.

The education of the real doctor of today is a study in harmonies. A science course in high school, two or three years of an intense scientific splurge in the university with later a B. S. sheepskin, four years of heartbreaking effort in Medical School and a final year's internship in a big, tiled hospital where he bangs the charity patients about to his heart's content. No wonder the "Old Man" is a foggy and his cronies are dolts. In medical college our young doctor learns to twiddle a test tube, split a drop into equal thirds, and a lot of high-faluting tests. He enthusiastically adopts the doctrine that drugs are piffle, that mixed prescriptions are an indication of degeneracy, and that the doctor that keeps and dispenses his own drugs is a Judas Iscariot. The pharmacist must live, y'know, and all that. He watches a Caesarian section and a version from the polished amphitheater, and is an accomplished obstetrician; he is hung onto a retractor by a compassionate surgeon-chief who wishes to keep him from falling into the wound, and occasionally is allowed to sew up the skin, thus budding into a surgeon. Then papa donates a Ford, an examining table, a stethoscope, and a new star shines in the medical firmament.

Business? Heavens, no time for it, he'll pick that up later. (He does, much later.) Let the bloomin' chiros learn business, he is a professional man. Handling the relatives, Lord help us, he's not a minister, his task is to handle the sick, not sob with a few nutty relations. Observe the patient? My gawsh! That's old stuff, a blood sugar test or basal metabolism determination will be far more accurate. Pain in the belly—don't give morphine, it masks the symp-

toms. Blood count, test meal, duodenal bucket, barium meal and x-ray, three day's observation in the hospital is the civilized way to do it. This standing and gawping at a patient is old stuff—not done any more.

And so, a new star shines in the galaxy of medicine. What are his qualifications? A test tube disposition, a rabid follower of drug nihilism, poor psychologist, poor clinician, with no conception of materia medica or therapeutics. How lucky it is, for the first three years of his medical existence, that 75 per cent of all human ailments subside in spite of medication or do not go on to death within that time!

What are the real doctor's ambitions? To go out into the country and be one of the bunch, to minister to the poor and lead halting footsteps by the sanest, most comfortable way? No sir! A specialty for him—he wants none of this blacksmithing. To amount to anything, he thinks, one must have a specialty. An internist who takes an obstetrical case is a hound, a surgeon who drains an antrum is a scab, etc. One thing for each man, and each man for one thing is the modern way. He will honor a group provided they realize his worth. Of late years, due to the stressing of surgery in the medical curriculum, surgical aspirants are legion—the bitter experience of the early months of America's cantonment organization in the late war demonstrated how few operators there really are among modern surgeons. The city lures him toward itself. The country is slow, the natives are dull, the mud is deep and roads often impassable. On the other hand, the city's paved streets are comfortable, fees are higher, hours are easier, and the picture show or dancing party is such a rest to the overworked beginner! Therefore, of late years there has been a concentration of physicians in the cities, with adverse results. They clique together; one clique harries another. Less work is done per capita, and it is of a more specialized nature. The fees are correspondingly higher, since they are derived from a smaller total of work and must cover higher office expense and living cost. The public pays the difference—or goes to a chiropractor. The country practitioner is relegated to the haystack row; he is considered by his civilized brethren as a bungler and a jack of all trades. In times he resents this attitude and does not feel most kindly toward his seemingly more lucky brethren in the city. And, because his of-

fice contains a coal scuttle instead of a radiator, linoleum instead of Axminster rugs; because his medical society meets four times a year instead of twice a month, he unconsciously feels that his more segregated brethren have it "over on him."

As a rule, the attitude of the New Doctor is more or less of a medley. Surgery, Nose and Throat, Obstetrics—these magic words ring tunelessly in his ears. In his mind's eye he pictures a neat little sign, "Gordon Dingbat, Surgeon." He sees his office filled with elegant people, all needing life-saving operations; a white operating room with himself as the central figure, commanding a legion of nurses while some ignoramus country doctor breathlessly watches him remove a brain tumor or whack out a spleen amid bated breathe. The mental pictures of the aspirant to Medical or Obstetrical fame are similar. Or perhaps he wishes to allow some group to be honored by his services, allowing the attainments of his associates to complement his own. The city is the only place in which he can make use of his training; muddy roads and tobacco-chewing denizens of the rural lanes are not for him.

But, one by one, the disillusionments come. The embryo surgeon buys his beefsteak with money earned from G. U. work. He awakens to the fact that people would rather take the advice and services of an older man—they hesitate to be led to the threshold of the Valley of the Shadows and back by a beardless chin as it were. Occasionally even the nurses prognosticate better than he, however little he will acknowledge this, even to himself. The group addict awakens to the fact that there are a great many unpleasant details about the plant must be done—and he does them while the older men do the "big things." He learns that, specialist that he is, patients often take his specialty to one of the older physicians in the group who has some other line. Money cannot be turned away; the patient obtains service from the other man. In the city, as well as in the country, one sometimes grows hungry; this he finds out. The large fees, as well as the fame, goes to the older fellows. The people cannot seem to realize that he has better training, more technique, better theories than the old fellows; they persist in taking others' advice in preference to his own. And, saddest blow of all, comes the realization that practically all of the big fellows are Mossbacks after all—they finished their medical training in three years;

they began practice in some small, muddy village.

Disillusioned, he at last realizes that theory is a very good asset, but not the sum total of a medical career. The Old Boy knows people; how to handle them, how to talk to them, how to help and profit at the same time. But, vastly more, he has what the other has not, **experience in his trade**—he has been through the tight places and doubled his tracks, not once but many times. So, the New Doctor takes refuge in cynicism. If he be of the right sort, this cynicism but covers the determination to take a little postgraduate course in watching how the old fogies "do it." And, some day he wakes up to find that there is hope for him. He even comes to realize that the country doctor's percentage of cures is equal to that of the city practitioner's; that the Mayo's batting average is very little ahead of the Old Doc's down in Podunk.

The practice of medicine is not according to hard and fast rules. It deals with the intangible, the unseen, and in great many instances, with the unknown and even the undreamed of. The late Dr. Osler once made the statement that since what we do not know about Medicine is so much more vast and appalling than what we do know, the physician should be considered as the world's greatest hero, battling as he does against the countless unseen, unknown allies of death.

The mechanical trades are exact. A piece of lumber is a piece of lumber, oak is oak, an inch is an inch, up is up and down is down. Where greater nicety and exactness are required, machines can be made to do the work in most cases. These machines are so exact, sometimes, that seemingly the only difference between them and human intelligence is that they lack the ability to make a mistake, and their attention does not waver. And still, for ages past, to become a skilled mechanic or carpenter, the beginner must needs serve an apprenticeship. In older days the master mechanic loved his work for its own sake; his handiwork was individual and stood the test of time. To such a man was the beginner apprenticed—he lived with him, worked with him, and absorbed his knowledge by saturation rather than by pedagogism. The apprentice began, not with a masterpiece, but by sweeping the floors and handing the master his tools. Each thing he learned came by constant repetition to be a second

nature to him, not merely a theory learned or operation seen once or twice.

Medicine, on the other hand, is intangible, incomplete, invisible. We cannot see the intestine writhe, the mind unhinge, the antibodies form, as we can a wheel whirl or a lever work up and down. Nor can we remove and solder up an aneurism, or brush the cobwebs out of the brain with a whisk broom as we can overhaul a broken machine. A physician and even surgeon, can but help his patient help nature to cure or stumble along as best she may. The exceptions to this procedure are not many relatively. Helping the patient to help nature. A roundabout method to say the least—but one which cannot be changed. The approach to this method is through two minds—the physician's and the patient's. Nowhere else, perhaps, is there a less exact or more abstract avenue of approach to the accomplishing of a result. Every thought, act, circumstance, or combination of these, not only in one mind, but in both of them, affect the situation. The Master Craftsman in Medicine is one who has seen the greatest number of combinations of these many factors the greatest number of times. The beginner has the knowledge of the factor in his possession, but has not had experience in sorting out the combinations. In his profession, above all, should the beginner be apprenticed to a Master Craftsman to learn these kaleidoscopic shiftings of conditions—to do and do again those things which will make the avenue of approach from mind to mind more successful. Nowhere but with a Master Craftsman, whom we have heretofore called the Mossback, will the novice learn to practice medicine.

The writer does not intend for one moment to belittle specialization, or group practice, or the city doctor. He sincerely believes that the medical education today is better than ever before. These all have their indispensable place in the practice of medicine. What he does wish to do is to emphasize the necessity of the beginner, whether he be mechanic, carpenter, lawyer or engineer, to apprentice himself to a Master Mechanic for some years. Especially so in the case of the physician, for he is mechanic, carpenter, lawyer, engineer, and more—minister and healer.

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An Appeal

A nation wide movement for improved conditions in maternal welfare is being inaugurated through the combined efforts of

a joint committee representing the American Gynecological Society, the American Child Health Association, and the American Association of Obstetricians, Gynecologists, and Abdominal Surgeons.

An appeal is being made to the Secretaries of the State Medical Associations to enlist the co-operation of their members and also of the constituent County Medical Societies to stress the subject of obstetrics in the programmes of their meetings and try to have more papers and discussions on the topics vital to this most essential branch of our work.

The reason for the propaganda is that recent statistics are published showing a deplorably high mortality in maternity work in our country. A Washington report gives the United States the unenviable position of third from the highest death rate in both sepsis and eclampsia among the seventeen civilized nations of the world. These two accidents are almost absolutely preventable. Among the reports from sections where pre-natal care is taught and where aseptic care observed in labor the mortality is reduced one-third to one-half the average in the same region.

So many other features while not so tragic demand reform in obstetrics that the committee hopes within five years that not only the mortality of mothers and children may be reduced just as the profession has cut down the death rate in typhoid fever, tuberculosis and diphtheria in recent decades; but also that obstetrics may be again placed on the plane with internal medicine and surgery, a dignity which it formerly occupied in the colleges and in the profession, as one of the three great branches of the healing art.

This is a work of education, and it demands the co-operation of teachers and specialists in obstetrics, general practitioners, nurses, and the general public, to accomplish so ambitious a program.

(Signed)

Fred L. Adair, M.D., Minneapolis.
Henry Schwarz, M.D., St. Louis.
Robert L. DeNormandie, M.D., Boston.
Geo. W. Kosmak, M.D., New York.
Frank W. Lynch, M.D., San Francisco.
Ralph W. Lobenstine, M.D., New York.
Wm. Clark Danforth, M.D., Evanston, Ill.
Geo. Clark Mosher, M.D., Kansas City.
Mo.

—R—

The doctor says, "If you are thin, don't eat fast. If you are fat, don't eat, fast."

THE JOURNAL

of the

Kansas Medical Society

W. E. McVEY, M.D. - - Editor

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COMMERCIALISM IN MEDICINE

To the business man safely devoid of sentiment, to the near-capitalist and pseudo-philanthropist, and to many of the shrewder men in the profession, commercialized medicine has a strong appeal. Once the idea has been well established and its possibilities are fully appreciated, capital will be easily attracted to enterprises that encourage the people to spend more time, more thought and more money in considering their states of health, their actual, probable and possible diseases.

This is indeed a reality for a stock company was formed in 1914 for the purpose of bringing the people to believe in the importance of periodical examinations and providing for such examinations. As pioneers in the field of commercialized medicine they have not done so badly. For the first five years, according to a circular recently received, the business was carried on at some loss, but for the past five years the annual profits have averaged about seventeen thousand dollars. This corporation claims to have paid to examiners during its ten years of operation approximately one million dollars. It also claims to have nine thousand examiners, and that "most

of these are members of the American Medical Association." In the published list of members of its "Hygienic Reference Board" may be noted the names of some of the most prominent men in the medical profession. In speaking of the plan of operation the circular letter says: "It is considered important that the Institute proceed along the lines that have proved successful in spreading this work and bringing about the endorsement of the principle of periodic health examination by the American Medical Association."

While the principle of periodic examination may have been approved, it seems that some of the plans of operation have been disapproved. At the last meeting of the American Medical Association the Judicial Council submitted a supplementary report to the House of Delegates in which it discussed the question, "Shall the medical profession vend its products directly to the consumer or shall it sell them to a middleman or third party?" Resolutions were adopted condemning the practice of commercial organizations that offer periodic health examinations at a price very much larger than is paid to the examining physician who reports not to the examined, but to the company he serves.

But this stock company has opened the way and has demonstrated in a small way the possibilities for profitable investment in what is apparently a legitimate medical field. A great many fortunes have been made in the patent medicine business, and when it has been found that better returns may be made in promoting scientific medicine there will be no lack for capital. Corporations will be formed for the exploitation of popular surgeons and popular physicians, singly or in groups, who will be secured under contract and at salaries that will seem to justify them in ignoring any ethical regulations organized medicine may propose. And in all probability, as the idea grows and the plans meet with success and public approval, our ethical principles will be modified or adjusted to legitimize such a new order of practice.

That may be regarded as a fanciful prediction, but more unlikely things have come to pass. The future is a long time in which many strange things may happen. One who can recall the status of the medical profession fifty years ago when doctors were slaves of the people and were paid for their services at such times as were most convenient, in such commodities as were most easily spared and in such amounts as the patron considered sufficient; one who can recall those conditions must certainly recognize that a radical change in the relation of the medical profession to the public has come about. Further consideration, however, reveals the fact that the medical profession did not initiate the new order of things, but by necessity adapted itself to the changed business methods of other professions and other kinds of business.

More than anything the change has been due to a new point of view on the part of the public. In older times diseases and injuries were regarded as misfortunes and their relief a duty. Now diseases and injuries are regarded as economic loss, that is largely preventable, and its prevention or curtailment as a business. The doctor's knowledge and skill now have a commercial value.

If the medical profession is still willing to be regarded as an eleemosynary institution the people are not willing to so regard it. People prefer to buy their medical services in the open market, and they no longer buy through the middleman, but take their diseases to the specialists. Since there are specialists for the diseases of every section of the human body all one has to do is to locate his disease, then go to the proper specialist. And to prevent any error in selection there are specialists in diagnosis. When the family physician became the middleman, the jobber for the services of the specialists, he felt that he was doing the best thing for himself and the honorable thing for his patients, but now he finds his stock has depreciated and his sales are falling off. What is the an-

swer? Other business men found it long ago in the department store. For the same reasons and in the same way, the department store in medicine has arrived and is here to stay. Paradoxical as it may seem, group practice is being popularized and its spread is being opposed by physicians all over the country. We are still, in this section at least, intolerant of group organizations in our own community, but we unhesitatingly send our patients to groups in other and distant parts of the country.

Well organized groups, however, will need no middlemen for, like the department store, they appeal to the people. They prefer to get all the service they require at one place and pay one bill. It saves travel, it saves time and frequently saves money.

The group plan is not the first step in the commercializing of medicine, it is near the top and the next step is capitalization.

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AN ONLOOKER'S IMPRESSIONS

It is sometimes worth while to study our activities from the viewpoint of the onlooker and compare our own estimates of their value with his impressions; to find, if we can, in his interpretation of our methods and accomplishments a fairly constant reflection of the motives and ambitions that guide us. The viewpoint must certainly be considered in estimating the value of any criticism. For instance, the senior anesthesiologist in a London hospital visited this country "to learn how medical work was done" and wrote his impressions for the readers of the London Lancet, and from his article the following is extracted:

"The Americans are undoubtedly very able business men, and they seem to me to have made a business of the medical profession. There is little of the personal element which we know here. I cannot make up my mind whether this is desirable or not. The patient becomes a case, his wishes are not considered, and he is entirely in the hands of the particular surgeon he consults. Naturally, as in every business concern, the best business man gets into control, but it does not follow he is the best."

doctor. Again, from a business point of view surgery stands supreme, and the head of the clinic is always a surgeon who makes a final diagnosis, in many clinics pays a salary to other people as assistants, and is intolerant of any suggestion or alteration in his particular methods. One of these paid assistants in a very subordinate position is the anæsthetist. He (or she, as the case may be) has no will of his own and is not expected to know anything or take any responsibility, and all he is expected to be able to do is to give a light ether anæsthetic after preliminary medication, or gas and oxygen with a fool-proof machine. Hence the reason for the nurse-anæsthetist, as seen all over the States, who answers the purpose very well as long as the surgeon is content to put up with a light ether anæsthesia with all the consequent discomforts. When not so content he will practice local anæsthesia, and this has been developed in a wonderful manner, but is not used where the anæsthetics are good. Such discomforts do not attract good men to take up anæsthetics, and though a better understanding is gradually arising, the anæsthetists have a long way to go."

Neither the name nor professional standing of our critic is of importance. His impressions seem to be frankly and honestly stated, while one of greater renown in the profession would probably have been, at least, less frank. His viewpoint is that of one to whom the practice of medicine is a profession rather than a trade, a scientific pursuit rather than an enterprise, a duty rather than a business; one whose training and associations have tended to preserve the traditions in medicine; but particularly one to whom, by heredity and environment, the word change is repellent and repugnant.

He was first impressed with the rapidly growing commercialism in the practice of medicine in this country. He was next impressed by the autocracy now much in evidence in the ranks of the profession here. He was also impressed with our lack of

thoroughness, noticeable to him in his own particular line of work.

These are not false impressions. The practice of medicine is becoming notoriously commercialistic. Our most noted, most successful surgeons and physicians are becoming vain-gloriously autocratic. Our practice is noticeably lacking in thoroughness, but in this particular, at least, we can claim an almost phenomenal improvement and need not fear comparison with the practice in other countries.

Our critic is not sure that our commercialism is desirable and he is not alone in that for there are many in our own ranks awaiting conviction, some of these will ultimately see the light and follow the crowd, the others will be swept aside like driftwood in the stream.

An autocrat in medicine is the result of a fault in mental development; a maladjustment of character phases, a mental horizon narrowed to his personal attributes, his own conceit and the deference shown him by his associates. He is too much concerned with his own importance to play any significant part in the progress of medicine. The credit accorded him and the publicity in which he revels is usually properly due to his plodding understudies or his unpretentious devotees.

—————R—————

CRITICISM

Criticism is not always justified, it may result from inaccurate observation or from imperfect knowledge, but it usually signifies that the act or thing criticised has failed to meet the critic's idea of perfection, that those responsible for the act or the thing have failed in making the desired impression upon the onlooker.

The most intelligent criticisms of the medical profession should naturally come from those within its ranks, but the most valuable criticisms come from those outside. That is to say, criticisms from those outside the ranks of the medical profession show us in what manner we have failed to make favorable impressions upon those whose confidence we desire. Even when

such criticisms are based upon ignorance, or misinterpretation, or malice, they may suggest the need for methods to correct the first, avoid the second and counteract the last.

Criticism of one member of the profession by another is usually based upon difference of opinions or difference of methods and is of slight importance except insofar as criticism may stimulate one or both parties to determine more definitely the facts upon which their opinions are based or prove more conclusively the merits of the methods adopted.

Criticisms of the medical profession by those within its ranks usually arise from different viewpoints. They are the expressions of various opinions as to what the medical profession should be, what it should do and how it should do it. In the proper evaluation of such criticisms the road to progress and ultimate perfection lies.

Fault-finding is constructive criticism only to those whose ambition is ultimate perfection. A fault must be located before it can be corrected. Even malicious fault-finding may serve a useful purpose in an unselfish, unprejudiced, conscientious effort at improvement.

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NOTICE TO MEMBERS

To complete a set of permanent files of the Journal for the Society the following numbers are required:

1903—April, June, August, September, October, November, December.

1904—January, February, March, May, July, September, October.

1905—January, April, December.

1906—January, April, May, August, September, November.

1907—January, February, October.

Anyone having in his possession one or more of these missing numbers will be doing a great favor by sending them to the Journal. When these files are complete the Society will have a complete record of its transactions from its first meeting in 1859.

CHIPS

"Psychic juices" are the fluids from the mouth and stomach caused to flow by the sight, smell and taste.

Light has to do with fecundity. At any rate it has been demonstrated that hens lay more eggs in a given time if their houses are lighted by electricity at night.

Hypocrates defined health physiologically as a condition in which each humor is in due proportion of quantity and force, but especially properly commingled. He was hot on the trail of the hormones.

It has been computed that at the height of inspiration a little more than eight per cent of the entire blood in the body is contained in the lungs and that on expiration it diminishes to between five and seven per cent.

Physiologists have determined the blood supply per minute for each 100 grams of tissue in the most important organs of the body. In the stomach there are 21 c.c. for each 100 grams of tissue per minute, in the intestines, 71 c.c.; spleen, 58 c.c.; liver, 84 c.c.; brain, 136 c.c.; kidney, 150 c.c.; thyroid gland, 560 c.c.

From certain clinical investigations, Cameron and McMillan have concluded that Roentgen therapy in massive doses, particularly when the upper abdomen is rayed, produces a definite lowering of urinary secretion and chloride excretion, there is a tendency to sickness following the x-ray exposure. Administration of sodium chloride before beginning and during the course of the treatment diminished the tendency to sickness.

On the theory that irregularly occurring high blood pressure is due to spasms of the arteries and that sulphur prevents such angio-spasms Istvan has treated such cases by intramuscular injections of sulphur solution. At first 1 c.c. of solution containing 0.001 g. of sulphur is injected into the gluteal region. These are repeated at intervals of several days, then at longer intervals with an increase to 5 or 10 c.c. of the solution. There is some pain and pyrexia. The blood pressure is reduced to normal and remains so with marked improvement or entire relief from vertigo, headache and pseudo-uremic manifestations.

Where there is a great deal of smoke

there must be some fire. If some one would take the trouble to generalize a lot of the specific theories advanced in medicine, some fact of real importance might be evolved.

In purpura hemorrhagica associated with splenomegaly and in which there is a marked reduction in the number of blood platelets, thrombopenia, Frank and Kaznelson, finding on splenectomy that the spleen was crammed with platelets concluded that the spleen caused the abnormal destruction of these bodies and advised its removal in these cases. Bedson, by means of an anti-platelet serum prepared from rabbits, was able to produce thrombopenia in guinea pigs which was always followed by purpura—except in those from which the spleen had been removed, which showed no manifestations of hemorrhage. Brill reported two cases in which splenectomy resulted in immediate cessation of hemorrhage. In these cases the platelet count rose immediately after the splenectomy but fell almost to its previous low level within a week. It will be of some interest to learn what part the spleen plays in this as well as other conditions.

Miyagawa concluded from some experiments reported by Ono, Naswitis and Furukawa, that there is some constituent of the dead red corpuscle, which, set free in the circulation, acts as a stimulant to the haematopoietic organs and is an auto regulator of the function of the blood cells. The experiments seemed to show that the parenteral injection of destroyed red cells in cases of artificial anemia caused a considerable increase in the number of red corpuscles in the circulation after a few days. In splenectomized animals, however, there was no increase of the red blood corpuscles after the parenteral injection of dead cells. It was concluded then that the constituents of dead red corpuscles required some specific change in the spleen to become endowed with the stimulating action that had been observed.

Clare (Eng.) states that he has been for some years treating cases of acute and chronic, bacterial infections with an emulsion of destroyed red cells. The treatment is based on the theory that the stroma of red corpuscles, when set free into the circulation by the destruction of the cell envelope, has toxic characters. In bacterial infection this is added to the specific toxin of the bacteria. His idea in injecting the

emulsion of destroyed red cells is to immunize the body against this endotoxin.

Iodine by mouth will produce abrupt remission in most cases of exophthalmic goiter according to a recent report by Starr and others. The remission is often as rapid and as extensive as that following subtotal thyroidectomy. Iodine will not suppress the disease permanently and if the treatment is interrupted for two or three weeks there is a rapid rise in the metabolic rate and increase of toxic symptoms. Fifteen drops of the liquor iodei compositus, well diluted with water, is given daily, preferably after meals. Although this is a large dose, equivalent to 125 mg. of iodine, smaller doses are not effective.

Giles (Lancet, May 5) was able to get the subsequent histories of 771 out of 1,000 gynecological cases upon which he had operated. From comparisons and classifications of these he reached the following conclusions: About seventy per cent of patients regain normal health. The highest proportion is found in cases of conservative procedures and complete removal of organs. Unilateral operations on the uterine appendages show the lowest proportion of complete recoveries, the chance of complete cure being subordinate to the preservation of functions of womanhood. Disturbances of the nervous system shown especially by affections of memory varied with the duration of the operation from 18 to 50 per cent.

It is probable that the diuretic action of milk is due to its calcium content, at any rate calcium salts have proven efficient remedies in the treatment of edema in nephritis and diabetes, if given in sufficiently large amounts, from 12 to 18 gm. daily. Where calcium chloride is not tolerated the lactate may be given, but when the lactate fails the chloride may be found more effective. The calcium salts seem to be more effective if the patient is kept on a diet free from sodium chloride. The administration of calcium increases the excretion of sodium.

Announcement has been made of the approaching completion of a new hospital in New York which is operated on the hotel plan, open to all qualified physicians. In the announcement it is stated that there are more than 20,000 charity beds in the various hospitals in the city. Only 750 beds are for private patients. It is also stated that of the 7,000 doctors in New York city

only about 1,000 have any connection with hospitals and others cannot attend their patients during hospital treatment.

If this is an accurate statement of the situation, it might be worth while to know why 6,000 of the 7,000 physicians are excluded from the New York hospitals.

In discussing the relation of hypertension to disease of the renal and vascular system, Muschcowitz says that the evidence is accumulating that such lesions are the result of the hypertension itself or of the normal intravascular tension. Hypertension brings about such lesions earlier than would normal tension. Essential hypertension represents the earliest phase of cardiovascular renal disease. He believes the arteriosclerosis within the pulmonary circulation is due to peripheral resistance, in most instances occasioned by stenosis of the mitral valve, but sometimes by emphysema, chronic asthma and bronchitis. In considering the remote causes of increased peripheral resistance in the systemic circulation, some psychic factors, he thinks, play an important role.

Winifred Ashby, by applying haemoagglutination, determined that the span of life of the blood corpuscles in the body is 30 days. From this some rather interesting calculations might be made. The amount of blood by weight has been found to be from 5 to 8.8 per cent of the body weight. In a man weighing 70 kg. (154 lbs.) there should be (say 7%) 4,900 grams (10.78 lbs.) of blood. It has been determined that the corpuscles make up 45% of the blood weight, so that a man weighing 70 kg. would have 2,205 grams (4.84 lbs.) of corpuscles. If the life of the corpuscles is thirty days then there will be 73.5 grams (2.5 ounces) of dead corpuscles in the circulation to be disposed of every day. There are 85 c.c. of blood by volume to every kg. of body weight. A man weighing 70 kg. would have 5,950 c.c. of blood. The corpuscles in one thirtieth of that amount or 198.3 c.c. die every day—about 991,000,000,000 corpuscles.

Leigh F. Watson (International Clinics, '24, Vol. 2) says: "Taxis is little used at the present time because of its dangers and the fact that there is a much lower mortality rate if operation is performed as soon as the diagnosis is made and without attempts at manual reduction. Contrary to the general opinion, if the hernia cannot be reduced in five minutes by moderate pressure, it is

inadvisable to continue taxis longer. Taxis is aided in infants, children and adults by suspending them by their feet, head downward.

"Taxis is contraindicated when the hernia has been down several hours; when the onset is acute and the symptoms severe; when previous attempts at taxis have failed; when the hernial coverings are edematous; when there are symptoms of prostration and shock, and when there are signs of ulceration and gangrene."

If taxis is apparently successful the patient is not out of danger for several days and should be watched carefully for symptoms of reduction "en masse," hemorrhage, and delayed perforation of the intestine.

Some publicity material recently received from the Children's Bureau, U. S. Department of Labor, states that \$1,688,047.12 has been expended by federal and state governments under the provisions of the Federal Maternity and Infancy Act during the first 15 months following its passage. There are employed in the Children's Bureau for this purpose—a medical director, associate director, a public health nurse, an accountant, a secretary and a stenographer. Plans for state work are initiated and carried out by a state agency.

According to this news item the Maternity and Infancy Act has already demonstrated its value, in that it has:

- (1) Stimulated state activities in maternal and infant hygiene.
- (2) Maintained the principle of local initiative and responsibility.
- (3) Improved the quality of the work being done for mothers and babies by disseminating through a central source—the federal government—the result of scientific research and methods of work which have been found to operate successfully.
- (4) Increased state appropriations with the passage of the act.

The activities under the act have included the employment of physicians, public health nurses, dentists, dieticians, health teachers and social workers, on staffs of health departments; education of the public through lectures, demonstrations, exhibits, films, etc.; maternity consultations, mother's classes, correspondence courses and other forms of educational work for mothers and supervision of midwives, etc., etc.

Perhaps after a few years the report may show some definite and tangible benefits that will justify both the act and the rather

large proportions for the expense of its operation.

—R—

Medical School Notes

A representative of the American College of Surgeons recently visited the Hospital and Medical School and made an inspection of their activities, submitting his report to the college. This report was very favorable and occasioned a letter from Dr. M. T. MacEachern, associate director of the American College of Surgeons and director of hospital activities for that organization. In his letter, Dr. MacEachern praised very highly the organization and methods of the hospital and stated that they in every way measured up to the high standards of the College of Surgeons.

The unveiling of the William T. Fitzsimon's Memorial Tablet in the lobby of the hospital will be on Thursday, October the 16th at five o'clock. This is during the Kansas City Fall Clinical Conference and plans are complete to make it a very impressive military affair. Surgeon General Merritte W. Ireland will deliver the dedication address. Dr. Fitzsimmons was graduated in the class of 1912 and was the first American officer killed in France.

Dr. R. H. Major has been appointed a member of the advisory committee on scientific exhibits of the American Medical Association. Other members of this committee are: Drs. W. B. Cannon, George Blumer, Ludwig Hektoen, George Dock, Urban Maes and J. Shelton Horseley.

The Kansas University Medical Alumni banquet will be held on Wednesday evening, October 15th during the Kansas City Annual Fall Clinical Conference.

Three articles written by members of the faculty were translated and published recently in the Spanish edition of the Journal of the American Medical Association. This edition is published monthly and contains the most original and important articles appearing in the weekly English numbers.

New appointments on the Medical School faculty are: Dr. Frank R. Teachenor, instructor in surgery; Dr. John G. Hayden, assistant professor of surgery; Dr. Lewis G. Allen, instructor in radiology; Dr. F. M. Denslow, assistant in urology.

Dr. Watson Campbell '14, is now associated with Dr. A. E. Hertzler as head of the

department of Internal Medicine of the Halstead hospital.

Dr. C. W. Beasley of Lyndon was a recent visitor at the Medical School.

—R—

The Summer Outing

RENNIG ADE

The Doctor had firmly and positively stated several times during the hot July weather: "There will be no vacation for us this year. Times are too hard. The cost will be too much."

Meanwhile his wife went ahead with the vacation plans, the same as she had every summer for the last fifteen years.

The colored domestic was given notice, the boys' overalls were mended and doubly reinforced, and all plans were made for the rough hurly-burly mountain excursion which she heartily detested but which she knew positively would soon start.

She had heard the Doctor before when he would make his annual statement, "We can't afford a vacation this year." From this time on she knew he would follow with a wistful eye the caravans of motor vehicles beating westward. The sight of a cane fishing pole tied to the running-board of an old flivver would bring a more tender expression to his countenance, and if possible he would slip up and pat one of the small white-headed occupants of the car on the head.

The wife again notes the symptoms, and notifies the bridge club she will be out of town for a couple of weeks. Doc mopes around, complains bitterly of the heat, coughs a little whenever he thinks of it, and tries to have night sweats but fails. On the sly he tells the two boys wonderful fishing tales, and they naturally become raging advocates of a mountain trip.

The wife patiently endures the camouflage, and goes right ahead with her preparations. The boys, eagerly grasping the bait so adroitly cast out, put up a vigorous and sustained howl for a fishing trip to the mountains.

Finally the Doctor, making a visible effort to register reluctance and patient resignation, remarks: "Well, I suppose there will be no living with them if we don't go. And besides, they do seem to have such wonderful appetites in the mountains."

The wife now informs him that she has had everything packed for a week, and will be ready to start any time.

Tentative plans regarding the itinerary are agreed upon, subject to modification

and change at each oil station in Colorado as information is derived from returning tourists.

Owing to the multitude of travelers going and coming, no one takes especial notice of the Doctor and his family as they spin over the prairies and foothills.

At a modest hotel in eastern Colorado where they pass the night the Doctor is approached by a rather questionable individual who appears to be official hauler of the baggage, motive power an old flea-bitten gray horse.

"Going fishing, eh? Where you going?"

The Doctor states that he is bound for the upper Platte.

The man smiles pityingly. "Don't go there. Fished to death. Saw a feller from there the other day. Fished two weeks, day and night. Only caught one fish. Three inches long. Was arrested by the game warden for having an undersized fish in his possession. Cost him fifty.

"Where you want to go is over on the Roarin' Fork of Skunk creek. Doc Standish and me caught eighty-six trout over there in two hours, a week ago Tuesday. Smallest one weighed pound and a half. Carried 'em on my back over the mountain five miles, while Doc went around in the car."

This tale was too much for the Doctor, so the itinerary was changed from the Platte to the Roarin' Fork of Skunk creek.

Fifty miles further a garage loafer accosted him with the familiar question: "Where you goin'? Fishin'?"

When politely informed that the Roarin' Fork of Skunk creek is the destination sought, the man throws back his head and laughs long and loud.

"Why man, they ain't no fish in there. They've turned the tailings from the sawmill in that crick, and killed all the fish. Fish get the sawdust in their lungs. Get to coughin.' Can't set still on their eggs. Eggs don't hatch. People are goin' to burn the sawmill.

"Now the place to fish is over on the head waters of Grizzly creek. A little hard to get at, but, say man—fish! What kind of flies you got "

A neat book of Coachmen, Professors, Ginger Quills, and many other varieties for discriminating trout, is rather proudly exhibited.

The questioner contemptuously glances at the display.

"Got any Brazilian Gnats?"

The Doctor shamefacedly owns to no

Brazilian Gnats. In fact he has never before heard of them.

With pity not unmixed with contempt, it is explained to him that a man to go after trout without Brazilian Gnats must be the victim of some severe mental disorder. The Doctor looks guiltily around to see if any of the bystanders are laughing at him. He imagines that a 5-year-old boy who is within earshot is snickering.

So at the first opportunity he slips into the store and buys all the Brazilian Gnats in stock—two dozen. Deep down in his heart he knows that no self-respecting trout will snap at one of these gaudy yellow monstrosities. Nevertheless, as has been his custom in the past, he always does his adviser the courtesy of following any suggestion concerning the purchase of flies.

He now turns back over the rough road, fifty miles, intent on getting over onto the head waters of Grizzly creek.

At last, after a hair-raising ride, he arrives, and parks his car between a Ford from Missouri and a Pierce-Arrow from North Dakota, each one carrying four or five able-bodied fishermen who have been lunging up and down Grizzly creek for ten days throwing flies, bugs, moths, millers, cockroaches, etc., in a vain endeavor to get a trout to register curiosity.

The Doctor joins the wild mob, and goes to slashing up and down the stream. It seems as though someone is bound to step on a fish in time. But no such luck.

A rancher who appears toward evening advises them that they will have to have some Egyptian Fleas in order to have success. But as it is fifty miles to the nearest flea, no one volunteers to go for this trout delicacy.

All the flies in the Doctor's repertoire are launched, singly and in pairs. In vain, however, for no mountain beauty succumbs to the lure.

Grizzly creek is finally abandoned, and preparation made for trying another stream. The Doctor is now determined to pay no attention to the advice of any more new-found friends. He will go far enough away that he can find parking space for his car without jamming the fenders of fellow humans. He will find a clear swift deep mountain stream. He will purchase fifteen cents worth of fish worms from some mountain lad, and he will put the flies away until the children have been fed a meal of trout—common plebeian trout whose fondness for the lowly fishworm should be their undoing.

He followed this program to the letter. He found the stream, the boy, the worms, and the price. He found the still shady quiet pool in the bend of the creek. He slipped up behind the nearest bank, and strategically deposited the wriggling worm in a little eddy above the still water. He was rewarded with a slight tug. Not knowing whether it was a fish or the fish worm, he lifted the hook, and found a ten-inch trout securely hooked. Other worms and other trout combined to make a very profitable entertainment.

When sufficient fish are obtained via worm route, the true sportsman will then gratify the artistic craving by casting flies. This is another story, and a word of explanation may not be amiss:

Casting flies consists of projecting the artificial bait, be it fly, moth, miller, or what not, with a sharp flick of the wrist, which causes the light line to carry far out over the water. For be it known that there is no weight attached, as in bait casting. The one is an art; the other a job. The expert will gently waft the fly twenty, thirty, forty, or even fifty feet, allow it to lightly touch the water, and then make it appear to skitter or shimmy away in a most life-like manner.

This is the piece-de-resistance of the discriminating trout. From somewhere within a radius of half a mile he makes a rushing, snapping pass, which, slowed by the camera eight times, is found to be just twice as fast as greased lightning. The time to catch him is during or at the apex of the pass. Unlike the catfish, he doesn't seize his quarry and settle down in a smelly cow-track and lie there for twenty-four hours. Not a-tall. The trout simply snaps as he goes by. And by the time the average fisherman has become aware of the attack, and motor instructions have gone out from headquarters to the flexor muscles, the trout is two miles away and in the meantime has struck at two other flies, three millers and a moth, and winked at a lady school teacher from Wichita, Kans., who is sitting on a hard rock fishing, or fishing hard on a rock as the case may be. Anyone who hasn't seen it done, everafterwards has a profound respect for any person who can successfully land mountain trout with artificial flies.

The Doctor wore a wool sweater, and the only time he was not busy picking fly hooks from the sweater, was when he was picking them out of the seat of his trousers. Nothing is more disconcerting than to at-

tempt an extra-long cast, hoping to land the fly in a particularly promising pool, only to find that the fly, with the cussedness inherent in all inanimate things, and in fishing flies especially, has fastened itself in the seat of one's trousers. There is an appeal that will not be denied—an irresistible desire to lean forward and stand on the top-most pinnacle of one's toes. Strong words are said, and the ancestors of this particular fly are mentioned in opprobious terms.

This, incidentally, is a time for much mirth among fellow craftsmen of the rod and reel. Friends who have been grouchy and sullen all day will explode with hilarious joy while witnessing the death agony of a brother trying to divorce himself from a No. 5 Coachman which has penetrated past the barb in his gluteal region.

This is the experience of the noviate fly-caster, and is fraught with grief, disappointment and blistered hands and feet.

But the noviate does not always remain so. In time he graduates from this rank, and after a few seasons becomes the scienced fisherman. Now the whole perspective takes on a rosy hue. He can handle the feathery fly with skill and precision. It obeys the slightest twist of his trained muscles. From behind a clump of willows it flutters out with unerring accuracy, and alights without the slightest splash alongside the big boulder with the deep foamy water around. It hesitates, then appears to walk rapidly and gingerly toward the shore, as though to escape from so dangerous a locality.

Old Spotted Sides, who has lain in the shadow of this rock off and on for four years defending it against all comers, and whose two and a half pounds of dynamic energy are always itching for a combat, spies the juicy morsel daintily skipping over the water. There is a greedy gleam in his eye—a swirl of water—a turn on the side—and he is hooked! Away he goes, the reel humming merrily, the automatic brake checking but not stopping the rush. Fifty feet down stream he jumps from the water a clean four feet, trying to shake the hook from his mouth. (And be it recorded that this is the time and place where many a lusty trout and tired fisherman part company.) Now he lies sullenly on the bottom. Now he takes another swirl across and down the rapid stream, narrowly missing the line on a projecting boulder. Now he appears tired out, and should be easily landed. He is guided to the shallow water along the sandbar, apparently exhausted.

The angler cautiously reaches to gather him in, with the landing net or the hand. There is where he makes a big mistake. A sudden lunge, a mighty flop—and Old Spotted Sides is gone, back to the safe retreat of the big boulder. The heart-breaking disappointment of the fisherman is not unmixed with a chivalrous appreciation of the gameness of his antagonist.

But they do not all get away. The next one, and the next, fight a losing game, and in the end find themselves ranged side by side in the wicker creel. They in turn are joined by others, each after a worthy battle. And as the sun sinks over the mountain, and the long shadows slip silently down the canons, the fisherman trudges back to camp, guided by the wreaths of smoke from the campfire and the delicious aroma of brewing coffee.

Supper is ready and waiting, and he is ravenously hungry, but before washing up, the ethics of the genuine disciple of Isaac Walton demand that each and every one of the catch be removed from the creel and be lovingly ranged side by side on the grassy turf where they may be best admired in all their speckled grandeur. Beware the crude uncouth product who insists on filling his stomach before showing his fish—he is of the mud, and lacks the "look of eagles."

When the pipes are lighted, and the camp fire gives out its cheerful glow, then the truly artistic fisherman is at his best; and fortunate is he who can communicate a word-picture of each of the glorious battles he has fought during the day.

—R—

Monologue

BY THE PRODIGAL

"Man was made for the earth. The earth was made a long time before man was made."

Man was made fitted for the environment. Nature is prolific in her potentiality. Creative intelligence made this earth foolproof. If he had not, our present kind of civilized man would be unknown. The first thing man did as soon as he got a little civilized sense was to destroy the timber and forests that afforded him shelter to protect him from the elements and fuel to warm his body. And the next break was to exhaust the soil and lessen or destroy its productiveness.

But nature anticipated man's destructive tendencies and future wants and stored energy from sunshine in the earth in the form of coal and oil. She furnished water power

by rain and gave man an inherent instinct to use the water courses to generate electricity and control its energy and utilize its power to do his work and warm his body. And when nature got tired of her fertility and began to refuse to produce sufficient food by tillage of the soil, man was face to face with starvation or he must give back to the soil, and he learned to fertilize it.

Man has bred his civilization up to the point now where he can equal nature or go her one better, by uniting, compounding and concocting food to nourish his body and drink to slake his thirst. From their talk, some mortar and pestle scientists would have us believe they have improved on nature. They have separated the cereals into their various parts and recombined them. They have eliminated, compounded and prepared drinks as a substitute for water and the juices of fruit as found in nature.

Chemists claim that they have outdone nature in many things she has put up and soon, probably, will have no use for her. However, there is just an inkling down in the minds of dietitians that "all is not well in Israel" and that there is a need for a "balm in Gilead." This is evidenced by pure food shows held over the land to awaken the people and to get them back to mush and corn pone, to beef and cabbage and educate them to the danger of the soda fountain and synthetic or rather to the "just as good" foods and drink. We have wandered afar in our dietary and in the treatment of our bodies, but the good sense of the average man when he comes to himself and thinks, knows that he cannot trump nature with his tricks.

Moral: If we want to live long and keep the digestive apparatus at 100 per cent efficiency, eat plain food as put up by nature. We should avoid chestiness in believing that we know so much when we know so little. And preserve our equilibrium.

Until recently we thought that the brain is the seat of the mind of man, that intelligence was a mark of its functioning. Science is undermining the brain theory. It is being shown that a man's intelligence depends upon the disproportions of his body and its members.

The Good Book says, "In the mouths of two or three witnesses the truth shall be established."

There are two witnesses establishing the leg theory of intelligence. Henry E. Garrett, Ph. D., of the department of psychol-

ogy, Columbia University, N. Y., says (*Popular Science Monthly*) he and Dr. Sante Naccarati of New York, specialist in nervous and mental diseases, conducted a test of the theory of intelligence among about three hundred students of Columbia University and proved that a very definite relationship existed between bodily structure and intelligence. This is what they found. "If you have long legs and arms and a short body the chances are you are intelligent." Brain work is your forte. "On the contrary if you have a long body and short arms and legs," better pound rock. "If normal type" you may be anything, that is, "if your limbs are not disproportionately long or short in comparison with the size of your body—you may be either intelligent or unintelligent. Whether you are suited for brain work or manual labor cannot be told accurately from your bodily measurements."

The scientific reason given for disproportionate body relationship, the doctor attributes to the activity of the "ductless glands, particularly the thyroid gland in the neck."

The reason (probably) why the thyroid gland in the gluteal region does not get in more functioning is—it is sat on.

Moral: The destiny that shapes man's ends is—the ductless glands.

P. S. The practical application of the foregoing mythical scientific hedging will be to grow smaller heads, since ductless glands will be used instead of the brain. As it is, the average brain is too big—takes up too much room. The brain of Gambetti, the greatest of European statesmen, weighed but one ounce more than that of an idiot. But the report said the brain was rich in convolutions. The more kinky the brain (not the hair) the smaller and the less space it will occupy. When finally reduced to atomic size if it contains as many facts as the hydrogen atom does electrons (1800), we will yet be ahead of the game and use a molecule for a hat.

In the London letter to the Journal of the A. M. A. of July 25, 1924, the correspondent writes of the annual meeting of the British Medical Association and gives a few thoughts expressed by the president of the association, Mr. J. Basil Hall, on what the recent military experiences had done to advance professional usefulness in dealing with sickness in civil life. He claimed that "the whole war period brought into focus an exaggerated idea of the importance of surgical technic, and cramped

the development of surgical judgment. The treatment of every injury and every disease became standardized. It was a bad training for the newly qualified student of medicine; each became a mere cogwheel in a great machine designed to fulfil a special purpose."

Mechanical diagnosis and specialism became idolized and the general practitioner was left in the background.

Dr. Hall stated a truism when he said, "Clinical observation threatened to become a lost art, and radiography and all the modern scientific methods were good servants, but bad masters."

Moral: The general practitioner of medicine, "if he don't watch out," will be in the same fix that Rastus was when he put on a combination suit of underwear and then could not get it off alone because he had lost the combination.

The appendix is saddled with more villainy. Dr. Mayo is reported as saying that a diseased appendix may involve other organs in the body. That is, as we infer, aside from the mischief it trumps up in its own precinct, it may send out propaganda to the ductless ones and other glands and ferment restlessness and dissatisfaction in them and cause them to slight their work, strike, or quit functioning.

The theory sounds good and, practically, Dr. Mayo, the same as the rest of us good doctors, at times, hits the bull's eye squarely on the nose.

—————R—————

A Timely Suggestion

A whole line of citizens have taken upon themselves the care of the health of the individual and the family, and have appropriated the title of "doctor." Types of "doctors" have multiplied beyond the telling. Self styled "doctors" of chiropdy; "doctors" of chiropractic; "doctors" of health; even "doctors" of laboratory health; not to speak of the "doctors" of the seventy cults recently listed by one Health Board. The populace at large enjoys these cults and faddists, and attends their sessions, calls upon them for services requiring some knowledge of the human mechanisms. As long as the "doctor" does not actually use the knife or prescribe through ordinary druggists, he is safe and within his rights as a citizen who has assumed as his patriotic duty the care of the health of the individual and the family. Let diphtheria rage through the community; let the enlarged breast be rich in cancer and not

in fat; let the mal-alignment of the vertebrae to be tuberculosis what matter—the drugless healers must go on!

At whose threshold should all this be laid? Very recently in our state, an attempt was made to register physicians annually (at a fee, of course) and then to have the machinery set up to investigate unlicensed and illegal practitioners. It was not possible to get the doctors to agree on the utility of this legislation. It seemed that it was penalizing the innocent to reach into the maelstrom of the guilty. The physician is already burdened by fees and taxes. He pays for his medical student certificate with which he enters medical school. He pays for the privilege of taking and passing the examinations licensing him to practice medicine and surgery; he pays to register in the county in which he practices; he pays for the privilege of prescribing narcotics to patients in pain (for a while he paid both a state and federal tax). The physician is numbered to prescribe alcohol, and to purchase it for office use although how and why no fee was attached to this nuisance is not understood. So perhaps it is no wonder that it was not possible to get physicians to agree on giving themselves another tax, another set of papers to fill out annually, and another number to add to the growing list each of us has.

It occurred to us, and I have prepared an editorial comment for Medical Review of Reviews, that honest doctors can change many things without more laws and more numbers. Suppose we agree that instead of a door plate or window sign which reads, Doctor Jones, or as some will have it, J. Jones, M. D., we have our sign read:

JOHN JONES, M. D.

Licensed to Practice Medicine and
Surgery in This State.

If all who may honestly do so, take this means of informing the world at large that the provisions of the state law of their community have been satisfied, it will put the outcast where he deserves to be: outside the pale. The objections to making public one's privilege to legally carry on the profession of physician and surgeon cannot be strong. No physician objects to having his narcotic license number printed on his prescription blank. No physician can object to having his license and county certificate in his office consulting room, although the old style of having them framed there has passed with the overstuffed furniture. Putting

one's self on record makes the illegal practitioner either quit or perjure himself

The protection once afforded by the title of "doctor" to the health seeker has become a spider web. Let us take the matter up; let us be honest; even if it entails a larger placard over our doorbell, or two lines instead of one on our letter head, and office card.

Fraternally yours,
HERMAN GOODMAN, M. D.
New York City.

BOOKS

The Surgical Clinics of North America (issued serially, one number every other month). Volume 4, Number 3 (Chicago Number, June, 1924), 245 pages with 108 illustrations. Per clinic year (February, 1924, to December, 1924). Paper \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

In looking over the June number of the surgical clinics one's attention is called to the article by A. J. Ochsner on the treatment of cancer with the actual cautery. The contribution by the Moorheads and Mix on the thyroid gland suggests the opportunity for careful study. A clinic by Bettman on chronic empyema is instructive. Bernstein has an article on the stabilizing operation for paralytic feet and that is instructive. There are twenty contributions in this number and all of them are of sufficient interest to justify careful reading.

Love and Marriage; Normal Sex Relations, by T. W. Galloway, Ph. D., Litt. D.; Associate Director of Educational Measures. American Social Hygiene Association. Net, 30c per copy

The Expectant Mother; Care of Her Health By R. L. De Normandie, M. D.; Instructor in Obstetrics, Harvard Medical School. Net, 30c per copy.

Tuberculosis; Nature, Treatment and Prevention, by Linsly R. Williams, M. D., Managing Director, National Tuberculosis Association. Net, 30c per copy.

Venereal Diseases; Their Medical, Nursing and Community Aspects. By W. F. Snow, M. D., General Director, American Social Hygiene Association. Net, 30c per copy.

Funk & Wagnalls Company, Publishers, New York.

These volumes are parts of a set of popular books on medical subjects. The various authors have endeavored to present their subjects in a manner that will convey accurate knowledge without too much detail and in a manner that will awaken interest.

Principles and Practice of Obstetrics. By Joseph B. DeLee, A. M., M. D. Professor of Obstetrics at the Northwestern Medical School. Fourth Edition, thoroughly revised. Large octavo of 1123 pages, with 923 illustrations, 201 of them in colors. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$12.00 net.

In the fourth edition very little change has been made in the theoretical discussions. Some alterations and additions have been made to the chapters dealing with the practice of obstetrics. Some new illustrations have been added where they may add most to the value of the text. This is one of the most popular works on the subject of obstetrics.

Medical Gynecology. By S. Wyllis Bandler, M. D., Professor of Gynecology, New York Post-Graduate Medical School and Hospital. Fourth edition, thoroughly revised. Octavo of 930 pages with 157 original illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$8.00 net.

Dr. Bandler has rewritten the chapter on the endocrine glands. Dr. Walter T. Dannreuther has written a chapter on urinary conditions. Dr. George Mannheimer has rewritten the chapter on constipation and Dr. Walter Highman, the chapter on syphilis. The illustrations are adequate. Nothing seems to be lacking to make this a fully sufficient text on this subject.

SOCIETIES

Reno County Society

In honor to the memory of a deceased member—Doctor Clements C. Klippel, the Reno County Medical Society met in the Chamber of Commerce rooms on Wednesday, June 11th, 1924.

In his demise we are conscious of the loss of a father, brother, counselor and sincere friend to every honorable member of the medical profession and to the laity, a life devoted to the alleviation and cure of physical ills and mental disquietude.

His entire professional life was devoted to conscientious service to his fellow man, regardless of station, race or remuneration. He was punctual, considerate, thorough, ever loyal to the best interest of his patient; kindly of manner, but unyielding in principle, and during the past thirty-eight years such has been his life to our profession and service to this community that well may he have said with the poet, Tagore:

"On the day when death will knock at thy door, what wilt thou offer him?"

Oh, I will set before my guest the full vessel of my life—I will never let him go with empty hands.

All the sweet vintage of all my autumn days and summer nights, all the earnings and gleanings of my busy life will I place before him at the close of my days when death will knock at my door."

The Reno County Medical Society mem-

bers extend heartfelt sympathy to his wife, daughter and son.

H. G. WELSH.

G. R. GAGE.

C. A. MANN.

The members of the Reno County Medical Society had but learned of the "passing" of a member, Dr. Klippel, when the additional sad news came to them that Doctor Stephen M. Colladay had also just been called to his reward.

It seems a marked coincidence that these two, each of whom had served so well and over such a great period of years together in this community—always the best of friends and each entertaining the highest regard for the other—should be called to their "Eternal Home" so nearly at the same hour.

Doctor Colladay possessed a staunch personality—positive, yet broadminded; firm of position, yet kindly considerate—true to his principles of right.

He was a leader among men, both in his profession and as a citizen; loved by his patients, admired and deferred to by his colleagues and esteemed by all who knew him.

The Reno County Medical Society extends the sympathy of its members to his sons, Edward and Charles Colladay.

H. G. WELSH.

G. R. GAGE.

C. A. MANN.

Quarterly Meeting of the Golden Belt Medical Society

Junction City, October 2, 1924. Meeting called to order by President Karl Menninger. Minutes of previous meeting read and approved.

Matter of the necessity of the members of the society being more active politically in the coming election for the good of the profession was discussed freely.

Moved and seconded that the chair appoint a legislative committee for such activity as it sees fit in connection with the furtherance of the interest of the medical profession during the coming months, with particular reference to legislative aspirants and legislative acts. Motion carried.

The following members were appointed by the chair as a committee of advisors to aid the chair in selecting the legislative committee: Dr. W. D. Storrs, Dr. W. A. Carr, Dr. J. D. Colt, Sr., Dr. Benj. Brunner.

Moved and seconded that the political and legislative committee be endowed with

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A. L. LUDWICK, A.M., M.D., Asst. Supt.

EDITH GLASSCOCK, B.S.

Business Manager

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the power to solicit funds from the members of the society as they see fit. Motion carried.

Committee of which Dr. Robert Stewart is chairman, was appointed to draw up resolution for the society relative to Dr. H. G. Collins, recently deceased.

Committee appointed, composed of Dr. C. C. Stillman and Dr. W. D. Storrs, to draw up resolution relative to Dr. Wilson, recently deceased.

The legislative committee appointed as follows: Dr. Benj. Brunner, chairman; Dr. Alfred O'Donnell, Dr. W. A. Carr, Dr. J. D. Riddell, Dr. W. D. Storrs, Dr. John Lattimore.

The following names were proposed for membership and passed by the two members of the board of censors present and unanimously voted into the society: Dr. W. P. Wilson, Onaga, Kan.; Dr. Wm. W. Wineinger, Enterprise, Kan.; Dr. L. E. McFarlane, Manhattan, Kan.; Dr. W. O. Nelson, Lawrence, Kan.

Dr. H. C. Mayer, Junction City, was proposed but too late to be acted upon. Carried over to the next meeting.

A few short remarks by the secretary, relative to members increasing both the attendance and membership of our society.

The scientific program was proceeded with as follows: Dr. Robert Stewart, Topeka, "Surgical Mumps"; Dr. Fletcher Taylor, Kansas City, Mo., "Significance of Residual Urine"; Dr. Paul Stookey, Kansas City, Mo., "Syphilis of the Cardio-Vascular System."

A fifteen minute recess was then declared by the president, after which Dr. W. E. Mowery of Salina, gave a paper, with lantern slides, on the treatment of "Carcinoma of the Breast, with Cautery Technique." All of these papers were discussed freely.

Moved by Dr. Brunner of Wamego, and seconded by Dr. Colt, Sr., of Manhattan, that Dr. Riddell be requested to invite the society to Salina for its next meeting. Motion carried unanimously. Society invited to Salina for next quarterly meeting which will be the first Thursday in January. The invitation was accepted by an unanimous vote of the society.

Following the scientific program a very elaborate chicken dinner was enjoyed by the doctors, doctors' wives and lady guests.

Music was furnished during the dinner by a very inspiring jazz orchestra.

After the dinner a vote of thanks was

extended to the Junction City doctors for the very excellent meeting and good time had by all.

J. D. COLT, Jr., Secretary.

—R—

A Matter of Critical Importance

A point worthy of serious consideration has been brought out in recent discussions of the obstetric dose of pituitary extract. It is that unless the extract itself is of *uniform* activity, one make being assayed by the same standard as another, there can be no fixed dosage, not even a safe dosage, of the product as supplied by different manufacturers. The point is sustained by tests which show that some specimens on the market are three or four times as active as others. It would seem, therefore, desirable, in the interests of safety and efficiency, for the physician to do one of two things: either adopt one make of pituitary extract and stick to it—Pituitrin, for example—or, ordering in original packages, be guided by the dosage recommended by the manufacturer, whoever he may be. The advantage of the former method is obvious: the physician has one pituitary product for all occasions, one that he can rely upon as a result of his acquaintance with it and with other products of the same house.

It is hardly possible to translate the dose of one pituitary extract into that of another, the different standards being unknown; the physician must, in practice, depend upon the manufacturer and his own experience. A pituitary extract can be dangerously active as well as hopelessly inactive; the sine qua non is a combination of activity with relative safety, and above all *uniformity*.

—R—

A Review of One Hundred Cases of Carcinoma of the Cervix

The report made by Lawrence A. Pomerooy and Abraham Strauss, Cleveland (*Journal A. M. A.*, Oct. 4, 1924), is based on 100 consecutive cases of carcinoma of the cervix in patients applying for radium treatment. The special purpose of the study of this series of cases was to find out whether the microscopic examination of tissue removed at the time of the original examination or treatment would enable one to make a prognosis with accuracy. The best results from treatment were obtained in the spinal cell type with pearls and in the adenocarcinomas. A rather surprising feature of these results is the large proportion of palliations, 71 per cent, obtained in the transitional type for the six month pe-



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riod, and the rapid decrease of this percentage in the other periods. This suggests that the cells of this group may be quite sensitive to radium, and brings up the question of the advisability of repeating the irradiation in even apparently quiescent cases of this group.

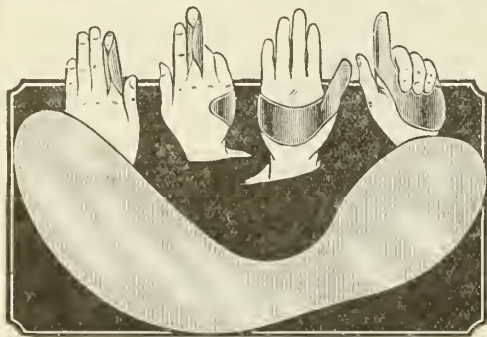
—R—

The Relation of Hyperglycemia to Cataract

In 1921, Helen Baldwin and Else A. S. Barthel, New York (*Journal A. M. A.*, Sept. 27, 1924), saw a patient with cataract who also had a high blood sugar, although she did not have glycosuria or any other symptoms of diabetes. Other cases have been seen since then. The percentages of blood sugar as found in 132 consecutive cases of cataract are given. In all the cases, the blood was drawn before breakfast. Ninety-nine of these patients had a percentage of blood sugar above 0.12; that is, including five traumatic cases, 75 per cent of the patients examined had the blood sugar above 0.12 per cent.

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Pneumonia—Its Management and Treatment from a General Practitioners Standpoint

O. D. SHARPE, M. D., Neodesha

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

It is the importance of this subject, rather than the great skill of the writer that prompts him to bring up this subject for review and discussion at this time.

Pneumonia is one of the most common, as well as most dangerous diseases with which we have to deal; and its effects are often far reaching. Its treatment from textbook standpoint, and from most every point of view, has been so varied and remedies so numerous that it is hard to get settled on a line of treatment that seems reasonably satisfactory, and one that you can rely upon with confidence. My twenty-nine years of ups and downs with this disease has centered me on a line of procedure and treatment which for many years now has served me well and I believe is worthy of note.

In the first place, some cases seem hopeless from the beginning. Sometimes from the previous enfeeblement of the patient from various causes—concurrent diseases—extremes of age, etc., as well as too long neglect. Right here I want to say that it is important that we recognize this disease early or else err on the safe side and get busy at once, informing the attendants of your suspicions and impress them with the gravity of the disease and the importance of the closest and best co-operation from them. At the same time nudge yourself under the ribs that you let no grass grow under your feet. Here, oftentimes, is where we lose valuable ground, for if we do not recognize the disease and its gravity, who is going to recognize it? Then later, as the breakers come, you, as well as the attendants feel grateful that you grasped the thing early. Here again, keep close track of every detail of your case if you are going to treat it at all.

Realizing that our treatment is not all medicine, for we cannot force the disease out with heavy treatment, but must direct

our medicine and management to the assistance of nature, and avoid with great care interfering in any way with nature's effort. Occasionally we hear and read of quick cures, but I am not here to advocate any of them at present, but to preach a sane and cautious handling which I believe will save many patients while we are awaiting some panacea.

A few words on diagnosis. I first get the history of a rather sudden onset—an exposure or prolonged neglect of cold, perhaps a chill, rapid breathing, some cough, fever, etc. Then try to eliminate other possible causes. Sometimes make local examinations, but not always, and then don't depend on them as much as I do the history, for if I err I try to make it on the side of pneumonia. Often in old people a prolonged cold will show some delirium which you won't always get unless you inquire for it.

Since writing most of this I noticed an article on diagnosis of pneumonia by David Reisman of Philadelphia, in an April number of the A. M. A. Journal, which is very fine.

TREATMENT

In the first place, do not try to force a break-up of the disease by excessive treatment.

One thing early in management is to remember the contagiousness of this disease and impress the attendants with this information. In discussing treatment I would like to take up pneumonia in young children first, as it differs in some particulars from that in older children and adults—then again from the really old.

Have the air fresh in the room as nearly as is practical, also some sunshine, not much, if any, stove heat, except in real cold weather, then steam in the air, keep shoulders and arms well covered—if real young, pin a blanket around them and keep it on day and night, skimp the diet, though they should have a reasonable amount of nourishment. I usually go slow on milk unless I am sure that it is digesting well and not causing fever. Try to keep the fever at or below 103 degrees. I first give a prepa-

ration as follows: To a solution of soda in a glass, I add moderate doses of aconite, gelsemium and belladonna. This is given every two hours when awake. The soda helps keep down or control acidosis, besides keeping up the supply of alkali, remembering that every tissue of the body, including the blood, is alkaline. The only exception being the production of hydrochloric acid for a short time during stomachic digestion—then a waste product of acid in urine and perspiration. The other drugs mentioned have a restraining influence on the fever as well as stimulating respiration and the kidneys, besides also the effect on cough. I feel that this prescription helps moderate the severity of the attack and especially where acidosis is present. It makes the case milder.

In case the temperature is excessive, and child nervous and inclined to spasms, I keep, by spells, putting a cool cloth on the head, and sponging the back up and down the spine with tepid water, for five or ten minutes at a stretch, until the fever is kept within reasonable bounds; at the same time, of early mornings or any other time when the temperature is low, I give three or four doses of quinine, which helps control the fever and seems to help moderate the disease. However, I don't give much if any quinine if the temperature keeps at or below 103 degrees. In case of cyanosis and apparent collapse with smothering I usually use a fried onion poultice, which appears to be life-saving at times. When through with the poultice I replace it by greasing the chest well with quinine, lard and turpentine and cover the chest with a good warm cloth of wide dimensions and several thicknesses.

As the temperature moderates, after the first two or three days, and the case has been severe, I cut down on the above vegetable drugs, and add the digitalis to support the heart, kidneys and secretions. Sometimes have to meet other emergencies, but by holding steady, and watching all corners, children will pull through a tough siege almost as well as a grown-up, unless it might be the very youngest.

In the older children and grown-ups, much the same line of treatment is used. When I find my patient is a poor hand to keep the chest, arms and shoulders well covered, I have him put on a coat or sweater for they need that protection and it should be continuous even after the fever is gone. Older people are just as hard to

keep covered as children, for many of them are in the habit of sleeping with arms out. But on account of the proximity of these parts to the seat of the disease, I think it very important to keep them well protected.

Keep bowels active, light diet, not much sweet milk while temperature is high—buttermilk much safer, and it is usually liked better.

My soda solution is used in proportionate doses every two hours, and if the case is severe, and there seems to be strong indications of acidosis, I have them drink soda water several times daily in addition to the prescription. If fever is excessive, I give 10 to 15 grains of quinine of mornings or at a time when the fever is at its lowest ebb, and keep it up for three or four days, for as a rule that will cover the period of excessive pyrexia. I avoid if possible, coal tar products in controlling fever, as I believe it is dangerous, except when there is a good deal of nervousness and temperature is not reasonably controlled by the above remedies. Then I give an occasional small dose to help moderate the excessive temperature, and at times, at the time of break-up, if it is hard to start perspiration, a dose or two seems to give nature a hint and a boost that has seemed to help. After the first three or four days your excessive temperature gives way to a moderate one and often only a little, at the same time more stupor and delirium with very dry tongue and sluggish secretions with scant amount of urine. At this time I usually start digitalis, enough to steady the pulse, stimulate the kidneys and secretions, and hold patient's strength without trying to force matters, and await the break-up.

At times we have so much delirium and of such furious type it becomes necessary to add a little bromide and maybe a little chloral, too, but if moderate doses don't seem to settle it, then I give alcohol or whiskey if available, and in sufficient quantity to quiet, which it usually does nicely. Whatever you do, conserve the strength of your patient, even to the using of a bed pan. You will usually come out alright even with the quite old.

Sometimes you find patients who have a sick stomach and can't keep any medicine, it may be for several days. In such cases I suspect acidosis and use either enemas of soda water with other medicine if necessary, or may use Murphy's drip, to keep them from drying out too much, etc., until at such times as they can use the stomach.

Also use hydrotherapy to control excessive temperature.

If having much pain or pleurisy, I usually depend upon Dover's powder, hot cloths, etc., seldom a poultice, sometimes a hot bran sack.

In these latter cases, when the break-up comes, and the temperature doesn't come down entirely, and sweating continues, I watch carefully for empyema. Don't remember to have seen a case where I didn't have considerable pleurisy.

Again, occasionally we get a case that may come nicely to the break-up, sputum loosens and comes up, etc., and the fever may waver some, then settle back and may even come higher, for a time, then look for wandering or double-pneumonia. It may be you remember your patient had a late chill, if so, add seven days to that time and hold steady for the final break-up, which will usually come nicely the same as the first one.

Occasionally you will have a case where the clearing up is not complete, but keeps a little fever and cough, sweats, etc., and if no empyema, your case is likely of tuberculous tendency or maybe only of slight empyematous output, which is slow to clear up. Keep your patient in bed—fresh air, plenty of cover, nourish well, tone up and wait. If you let this patient out, you are likely to have it end in T. B.. If your patient can ever be cured, now is the time, so hang on for every interested party is dependent on your judgment.

THE VERY OLD

Have had quite a few cases of this kind that seemed to present a different line-up.

Many of these cases start from what appears a prolonged cold—for old people with weak hearts and low vitality rid themselves slowly from a cold, and with difficulty. The real old will have a pneumonia with very low temperature and if you are not suspicious you will not notice it until too late. Suspect it early, inquire for delirium and other indications and get busy for you are likely to lose out. Yet, with due caution and care, many of these will come through. In fact, I have come to look with doubt upon some statements I used to hear—that the old are living on borrowed time, and that it matters not. Don't kid yourself to inactivity with this idea, but fight it through on its merits, as though you expect them to get well and they will often do it.

Cough in most cases needs no special attention.

Flu and flu-pneumonia seem just as amenable to about the same line of treatment, also ether-pneumonia.

—R—

Minor Eye Injuries

J. F. GSELL, M.D., Wichita

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

Before taking up the consideration of eye injuries, we will briefly review the anatomy of the anterior part of the eyeball, as we must constantly keep in mind the character of the injury and the structure involved in taking care of these cases and in giving a prognosis as we are usually asked to do.

Beginning from in front, the first structure we find is the cornea. It is the circular anterior window of the eyeball and comprises about one-sixth the circumference of the globe. It is perfectly transparent and aids in the transmission and refraction of light rays. It is the most prominent part of the eye, having a shorter radius of curvature than the rest of the eyeball, because of its position and prominence it is the place of injury in a majority of our eye cases.

It is composed of five different layers: First, the anterior epithelial which is a direct continuation of the conjunctiva covering the globe. This layer is composed of several layers of flattened epithelial cells which are firmly attached to the structure beneath. The second layer is an elastic fibrous tissue membrane (Bowman's membrane). The third structure is known as the substantia propria or stroma. This, with Bowman's membrane, is a continuation of the sclera forward and with it forms the supporting envelope of the eyeball, giving to it its conformation and elasticity. This tissue is composed of alternating lamellae of connective tissue bundles.

These bundles run parallel to the surface and cross at right angles in alternate layers, thus, by this peculiar arrangement, form a system of freely intercommunicating lymph channels called "Recklinghauser's Canals."

The fourth layer is Descemet's membrane, an elastic hyaloid membrane, markedly resistant to pathological processes going on in the cornea. This, with the fifth structure, the single layer of endothelial cells lining its under surface is a continuation of the vascular or uveal tract.

The anterior or epithelial layer is the protecting envelope of the cornea on the outside and prevents the absorption of the normal eye secretions while the endothelial

layer on its inner surface serves much the same function by preventing the absorption of the contents of the anterior chamber.

The corneal tissue is entirely devoid of blood vessels in its normal state. It receives its nourishment from a series of arterial loops which surround the corneal margin and extend into the corneal tissue, about one millimeter. From these loops plasma is thrown out and is carried into all parts of the cornea largely through Recklinghauser's canals, previously mentioned.

It is freely supplied with sensory nerves, particularly in the outer layers of the stroma and throughout the epithelial layer, hence lesions of the cornea are very painful, especially so when affecting its outermost layers. The nerve fibers, after entering the cornea, lose their medullary sheath, thus, not interfering with its transparency, they form a fundamental plexus surrounding the cornea from which plexus fibrillae pass outward to all parts of its tissue.

The structures to the side of the cornea are, first, the conjunctiva. This is a mucous membrane lining the under surface of both eye lids. It is then reflected onto the globe and covers the anterior part of the eyeball. It is firmly attached to the under lid surface but rather loosely adhered to the globe and can be readily moved about on the submucous tissue beneath. It is freely supplied with blood vessels and nerves. The next structure we find is the sclera. This, with the stroma of the cornea, forms the framework of the eyeball. It consists of interlacing bundles of white, fibrous connective tissue and is sparingly supplied with blood vessels and nerves. The next structure is the vascular coat or uveal tract. This is composed of three divisions: In front, the iris; next, the ciliary body, and third, the choroid. This coat is freely supplied with blood vessels and nerves, so we see the front of the eyeball has a peculiar variety of anatomical arrangement.

In case of injury to the cornea, if the injury only involves the outer or epithelial layer, repair takes place rather quickly by proliferation of epithelial cells of like kind. Hence, we find these lesions heal without leaving evidence of scar tissue or loss of transparency to its structure. This is not true, however, if an injury extends deeper into its tissue. An injury involving Bowman's membrane or extending into or through the stroma, will leave a scar of greater or less density after the healing process is complete. This is due to the fact

that in wounds of Bowman's membrane or the stroma or Descemet's membrane these never regenerate, but are replaced by scar tissue which is not transparent. Keeping these facts in mind, we should be continually on our guard and not extend an injury deeper into the tissues by anything we might do while trying to relieve the patient from some injury for which he seeks relief.

The most frequent injuries we have to deal with are foreign bodies in the eye and a goodly per cent of these are injuries of the cornea. We might consider these as three types: Those which simply adhere to the cornea or under surface of the lids. second, those which penetrate and are imbedded in the epithelial layer, and third, those which penetrate the deeper layers.

Th character of foreign bodies we see are varied. With railroad employees and the traveling public we most frequently find the ordinary cinder. With mechanics and machinists, particles of metal and emery dust are more common, while in the general run of cases, loose lashes, particles of dust, sand, flakes of tobacco, weed seed, seed hulls and the like.

The presence of a foreign body produces lachrymation, photophobia and pain. This, at times, is very severe and patients are generally not long in seeking relief. Too often before consulting their physician, attempts at home or by some friend are made at removal, by using a so-called perfectly clean silk handkerchief, horse hair, flax seed, tooth pick and the like. I believe, however, they are learning in this, as in many other ways, to depend more upon the advice of their physician. In the case of simple adhesion to the tissue, a few drops of 2 per cent cocaine solution should be dropped in the eye and the mote can be wiped off with a small pledget of cotton moistened in a boracic acid solution or brushed off by an ordinary eye spud, and a drop of some antiseptic solution applied. If the foreign body is imbedded in the epithelial layers, the eye should be anesthetized and the foreign body removed with some type of eye spud.

Do not attempt to work about the eye free-handed, but rest several fingers or the wrist of the hand that uses the spud upon the patient's forehead or cheek. Separate the eye lids with the fingers of the other hand and by pressure attempt to steady the globe. It is often easy to remove the main body of a hot cinder or piece of metal, but there is around this a burned or stained

circular area that must be removed. This is best worked loose with a rather sharp-pointed spud. In any event, persist until every particle of foreign body is removed. After the eye is clear, a few drops of some cleansing solution should be applied, a drop of homatropine or atropin solution dropped in the eye and a bandage applied. If the wound does not become infected, it will have become fully repaired in a day or two without leaving any trace of injury.

If the foreign body has penetrated deeper into the tissues, it may be more difficult to remove, using the same technique as just described, but after the healing process we may expect as a result some scar tissue formation. In doing any work about the eye we should have as good light as it is possible to get. A valuable aid is some sort of loop or magnifying lens which enlarges the field. If a few drops of a 2 per cent solution of fluorescein and bicarbonate of soda in water, be dropped in the eye and then the eye thoroughly flushed, this will stain any abraded area a definite greenish yellow. This is also a valuable aid in these cases where a foreign body is suspected and is difficult to find, as it beautifully outlines the area involved. After removing a foreign body that has produced a definite abrasion or deeper injury, the eye should be cleansed, a drop of mydriatic solution used and the eye covered by a pad with adhesive strip or bandage applied.

Patients will sometimes object to this, as they wish to go right back to work, or they dislike a bandage that can be seen, but I believe we should protect these wounds with as much care as we would similar wounds in other parts of the body. The pad can be removed in from several hours to twenty-four hours time in uncomplicated cases. In simple cases I generally use one drop of 2 per cent homatropine solution as a mydriatic as this fixes the accommodation pretty well for several hours, but if there is any evidence of infection, I believe we had better use the atropin solution, 1 per cent.

Cuts involving the conjunctiva usually bleed more or less freely. If the injured parts are reasonably well coated, the eye should be cleansed, antiseptic solution applied and eye bandaged. If the torn parts are not well replaced, a suture of fine silk should be put in. These wounds heal very kindly as the conjunctiva is richly supplied with blood vessels. If the wound extends deeper and goes through the sclera, this must be thoroughly cleansed and if of any

appreciable extent, should be brought in place by fine silk suture including the conjunctiva in the suture. The sclera, as we remarked before, is not freely supplied with blood vessels, but the vessels from the conjunctiva follow the injured area and aid in the repair work.

Glass in the eye from explosions, especially the breaking of electric light bulbs, are sometimes unpleasant injuries as the glass is invisible and is broken in such small particles. In these cases the fluorescein solution is of much help. The whole eyeball must be carefully searched, the eye flushed, antiseptic applied and the eye well filled with sterile vaseline and bandage put on.

Insects and bugs of various kinds are not uncommon during the warmer months. In some of these cases the reaction is rather severe and may last for several days, due largely, I believe, to the secretion of formic acid or some other secretions from the insect. The eye should be thoroughly cleansed with simple saline solution, some mild astringent used. If painful, the application of cold pads is grateful to the patient.

Very painful injuries are those produced by burns, such as hot grease, glancing blows by flying hot metal and solder, the dropping of a hot curling iron sliding over the cornea. This may sear the cornea and its entire surface present a grayish appearance. These injuries alarm the patient very much. Beside being very painful, they often think that the eye is badly damaged. A few drops of cocaine solution should be used to relieve the pain and blepharospasm so an examination can be made. A drop of atropin solution should be dropped in the eye and sterile vaseline freely applied. I often give these patients an ounce bottle of Liquid Petrolatum, a drop to be put in the eye every few hours. A bandage should be applied. These superficial burns usually clear up quickly, in forty-eight to sixty hours the case is practically well. If the burn involves the conjunctiva, care must be taken to prevent adhesions forming. A blunt probe should be gently passed between the burned surface several times a day, the eye cleansed and sterile vaseline or some ointment used.

Chemical burns may give every grade of severity. In the case of acid burns, the eye should be thoroughly cleansed with a soda bicarbonate solution or some equally efficacious alkaline solution, while in the case of alkaline burns, a solution of acetic acid can be used. The after care of these

cases is much the same—by using antiseptic drops to control infection, if needed atropin solution should be used and the case watched to prevent adhesions forming.

I have seen a few cases that had only moderate burns from solution containing sulphuric acid, that were very tedious in recovery.

In the case of lime, plaster of Paris and cement in the eye, the eye should be cleared of the foreign body as soon as possible by flushing and picking out the particle. Plaster of Paris hardens quickly and can generally be picked out without showing much evidence of burn. Lime masses may produce more disturbance. If there is staining from a lime burn after all has been removed that is possible, a 2 per cent solution of ammonium chloride should be put in the eye for some time. This has a tendency to clear up the stain.

Not uncommon are powder burns about the face and eyes, due to dynamite and powder explosions and various Fourth of July instruments. The powder particles should be washed out, wiped off the under surface of lids and conjunctiva and picked out. If numerous, we may have to take several tries at it. Some of the granules may be deeply buried in the tissue. In some of the patients the cornea may be almost macerated and we should be careful not to do unnecessary damage. As the eye stands the presence of powder granules and small particles of stone better than most anything else, I would rather leave a particle imbedded, if not in the visual field, than to do much trauma in removing. I see a young business man as a patient occasionally, who has several rather large powder granules imbedded in his cornea. They have been there for nearly twenty years and never give him any trouble. When these cases come in, clean them up the best you can, put a drop of atropin solution in the eye, freely apply sterile vaseline and apply a bandage.

Corneal abrasions and scratches produced by the finger nail, limbs of trees or by some pet animal, are not infrequent. The eye should be flushed and a drop of mydriatic used and some antiseptic solution applied such as 10 per cent neo-silvol, 15 per cent argyrol, to prevent infection. If no infection takes place, the patients soon recover.

Penetrating wounds such as are caused by knife blades, scissors, ends of baling wire and the like, are always serious. The wound should be cleansed, antiseptic lo-

tion applied and in most cases a drop of atropin solution used and bandage applied. If the injury has involved the anterior lens capsule, traumatic cataract will develop. This can be recognized by the lens turning milky. In the young, the lens matter may slowly absorb without any further operative interference. These cases must be closely watched and if not fully equipped to care for them, they should be referred to someone who is.

Blows on the front part of the eyeball, such as the head of a flying nail, may show very little evidence of injury, and yet irreparable damage be done.

I have such a patient now. After the injury he consulted someone who assured him no damage was done, yet his iris is tremulous. There has been a tear of the zonula, a beginning cloudy lens and diminished vision. He did not learn this until after the time had elapsed when his accident insurance was in force.

I have seen several cases which had extensive abrasions of the cornea and were given a solution of the sub-acetate of lead to use as a lotion. This relieved the patient of his misery, but also relieved him of the sight of his eye, the abraded area being perfectly white due to deposit of lead. After this becomes fixed, I know of no way of removing it. While this drug is occasionally recommended as an eye lotion, I believe it a good plan never to prescribe it to be used in the eye.

These eye injuries are so varied in type and character that they cannot all be considered. I have nothing new to present, rather selected this subject feeling that we do not always give these minor injuries the consideration that we should. Neglect of proper care in a simple injury may lead to serious results, even the loss of an eye.

To reiterate, in taking care of foreign body cases, have a good light, and I believe every physician who takes care of these cases should have at hand a 2 per cent solution of fluorescein, $\frac{1}{4}$ to 1 per cent solution of atropin sulph., 2 per cent solution of cocaine, some sort of loop or magnifying lens, as many foreign bodies are difficult to see. I like the prism lens in spectacle frames as they are more convenient to use for one wearing glasses, also a good eye spud. Fix the eye with the finger of left hand to prevent its movement as best you can. Be sure to have your instruments sterile. Don't extend the injury deeper in the tissue or over a larger area than necessary, yet be thorough, as all

traces of foreign matter must be removed or there will be delayed healing or ulceration produced. After the case is finished, the eye should be covered with some sort of eye dressing to protect the wound for from several hours to several days, or until the abrasion is practically healed.

—R—

Dysthyroidism a Factor in Secondary Anemia

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Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

The term secondary anemia is used in this paper to denote all anemias not belonging to the pernicious anemia type. Anemias of this type have a color index of less than one and a volume index of less than one. This type of anemia is regarded as being secondary to some other condition, although the causative factor may be very difficult or impossible to demonstrate. Among the conditions commonly mentioned as causative factors in chronic secondary anemia are chronic or focal infections, malaria, chronic loss of blood, carcinoma, syphilis, intestinal parasitic infections, septicemia, gastrointestinal disorders, lead poisoning, coal tar products, marasmus and rickets.

Some cases of chronic secondary anemia in which the anemia is of a very high grade are very difficult to differentiate from the primary or pernicious type. The line of demarcation between these two types is not as sharp as is commonly believed. The study of many blood specimens and an intensive study of the patient over a considerable period of time are often necessary to decide the issue. I have seen some very capable men make a diagnosis of pernicious anemia on the strength of one blood examination, only to change their diagnosis to one of secondary anemia after repeated blood examinations. The idea prevailing among many clinicians that one has only to examine a stained smear of the patient's blood and find the pernicious anemia cells is entirely erroneous. There is practically no cell type found in smears from pernicious anemia patients that cannot be duplicated in smears made from severe cases of secondary anemia. The color index is of great value, providing, of course, an accurate hemoglobin standard has been used. Fully as important or even more so is the volume index, which is always greater than one in pernicious anemia, and rarely greater than one in secondary anemia. These are the two laboratory findings that

influence us most in our diagnosis. The absence of free hydrochloric acid in the stomach contents is emphasized by some as being strongly suggestive of pernicious anemia, but this condition is found so frequently in secondary anemia that I cannot see how it can be of any differential value. The main point I wish to emphasize is that one should make a diagnosis of pernicious anemia only after a most exhaustive study of the case.

In the study of a case to decide whether it falls in the pernicious anemia or secondary anemia class we should always be on the alert for some pathological condition that might be the causative factor. The finding of such a pathological condition is not only of help in the diagnosis, but must of course regulate our therapeutic endeavors as well.

The etiological factors in secondary anemia previously stated are those commonly mentioned in textbooks. There is another factor, however, which though not mentioned in many textbooks is rather frequently encountered in practice, *i. e.*, disturbances of the thyroid gland.

I have used the term "dysthyroidism" here to include all types of thyroid disturbances. For the purpose of simplifying discussion I will roughly classify all cases of thyroid disturbances into two groups—those having hypothyroidism or insufficient thyroid secretion, and those having hyperthyroidism or too much thyroid secretion.

Most books presenting a description of hypothyroidism rigidly classify all cases into two groups, cretinism and myxedema. They present the classic symptoms and signs of these diseases and describe only cases which present all of these classic symptoms and signs. Such a description is apt to leave one with the erroneous impression that all cases of hypothyroidism must fit perfectly into one of these classes. The more one studies endocrine disturbances in general, however, the more he is at a loss to find any classification that will adequately cover the field.

Thyroid secretion is necessary for a normal development and activity of the blood-forming organs. In myxedema, and still more in glandular insufficiency in youthful years, do disturbances in the formation of blood occur. Cases of thyroid insufficiency in middle and later life do not as a rule present the extreme blood changes found in cases of the adolescent period. Hypothyroidism at any age, however, produces a gradual, and in many cases, a

marked diminution in hemoglobin. The red cells usually show some decrease, but not to any degree proportionate to that of the hemoglobin. The leucocytic formula is frequently altered, the mononuclears and eosinophiles usually being increased at the expense of the polymorphonuclear neutrophils. Upon the administration of thyroid extract these changes are wholly or partially restored to normal. I believe that any case of anemia of the secondary type with an obscure etiology, and which is refractory to the ordinary lines of treatment should be investigated carefully for evidence of dysthyroidism, and if no evidence of hyperthyroidism is present thyroid extract should be given cautiously. By beginning the administration of thyroid extract in small doses no harm will be done, and it is surprising how many of these cases that have resisted all other forms of medication will respond to this treatment. In cases presenting constipation or intestinal toxæmia as a prominent symptom the addition of desiccated suprarenal gland substance seems to be of considerable benefit. The following case illustrates very vividly the effect of glandular therapy in these cases. This patient being in the adolescent period presents a much more severe type of anemia than is commonly encountered in cases of hypothyroidism.

Miss M., age 16, comes in complaining of vomiting. For the last four months she has vomited everything she ate. Usually vomits from 30 minutes to 2 hours after every meal. Appetite very poor and has bad constipation. Has been troubled with gas on stomach and poor digestion for the last two years, which condition has gradually grown worse. Rapid loss of weight for the last four months and has become dull mentally and tired all the time. Health was always fairly good as a child, but never real robust. Menses began at 13, but have been rather irregular and very scanty. Mother has had considerable stomach trouble and her color has always been bad. Family history otherwise negative.

Patient has a very sallow color and appears to have lost a great deal of weight. She is very slow to answer questions and seems rather sluggish mentally. Pulse 64. Temperature 97.4. Blood pressure, systolic 82, diastolic, 60. Reflexes very sluggish. No clubbing of fingers or abnormalities of skin. No enlargement of thyroid gland. Examination of stomach shows a retention of food in the stomach over night. No free hydrochloric acid in the

stomach contents over a period of two hours after an Ewald meal. Fluoroscopic examination shows a big baggy stomach extending well down into the pelvis and more than twice the normal size. No true peristaltic wave and only a few feeble movements during the 30-minute observation period. At the end of six hours most of the barium meal was still in the stomach. Blood examination showed, hemoglobin 44, red cells 3,800,000, color index 0.57, volume index 0.79, leukocytes 5400. Marked anisocytosis with an occasional megalocyte. Differential count showed polymorphonuclear neutrophils 50, small lymphocytes 20, large lymphocytes 24, eosinophiles 4, large mononuclears 2. Wassermann test negative.

This patient was given gastric lavage, hydrochloric acid with her meals, iron by mouth, and sodium cacodylate followed by small doses of neoarsphenamine intravenously. After a month of this treatment her gastric symptoms were considerably improved, but her general condition showed little improvement and her hemoglobin was still only 52. The iron and arsenic medication was then discontinued and she was given a capsule containing thyroid extract $1/5$ grain, *mux vomica* $1/4$ grain, and desiccated suprarenal gland substance 2 grains, three times a day. After a month of this medication her hemoglobin was increased to 83, she was much brighter mentally and showed marked general improvement. All treatment was then discontinued except the thyroid capsules and hydrochloric acid and the patient was allowed to go home.

Examination six weeks later showed a hemoglobin of 90, red cells 4,600,000, leukocytes 7000, polymorphonuclear neutrophils 63, small lymphocytes 20, large lymphocytes 15, eosinophiles 1, large mononuclears 1. Her pulse was 76, temperature 98.6, and blood pressure, systolic 94, diastolic 60. Gastric analysis showed 10 points free hydrochloric acid one hour after an Ewald meal. Fluoroscopic examination showed the stomach to be little more than half the size it was at the first examination and with fair motility. She was bright mentally and had gained eighteen pounds in weight. Since then she has continued to take thyroid extract at intervals, and has found that after discontinuing its use for a couple of months she begins to have trouble with her stomach.

A noteworthy influence is exercised on the blood forming organs by an excess of thyroid secretion, and these changes are

similar in some respects to those of hypothyroidism. With the increase in the metabolic rate found in hyperthyroidism one would not expect to encounter the decrease in red cells and hemoglobin exhibited by the hypothyroid type, and this holds true in most cases. There does not seem to be anything about the excess of thyroid secretion itself to cause a diminution in hemoglobin or red cells, but such a condition may result from the toxemia incident to the disease. A high grade intestinal toxemia is commonly present in cases of hyperthyroidism and this is no doubt an important factor in the production of an anemia in some of these cases. This anemia rarely reaches the degree found in many cases of hypothyroidism. A mononucleosis and eosinophilia occurs with greater frequency and to a greater degree than in hypothyroidism. Bertelli and Falta after the administration of thyroïdin to dogs found an accumulation of the neutrophilic cells in the blood of the liver. They concluded from these findings that the mononucleosis in hyperthyroidism was due to a change in the distribution of blood in the vascular tree. Other authors contend that this is due to changes in the lymphatic system and cite considerable evidence in support of this theory.

In the treatment of anemia in cases of hyperthyroidism I believe that arsenic in the form of sodium cacodylate or neoarsphenamine is the most valuable remedy we have. Arsenic seems to have a depressant action on the thyroid as well as a stimulating action on the blood forming organs.

The following case of hyperthyroidism with anemia is one in which very gratifying results were obtained from the use of arsenic.

Mrs. C., age 59, came in complaining of nervousness and hot flashes. Trouble began with menopause 15 years ago. Previous to that time her health had always been excellent. Family history negative. Was 5 years going through menopause and had a very stormy time. Would have gushes of menstrual blood every day for a month at a time. Developed a swelling on the right side of neck which persisted until 5 years ago when it decreased considerably in size. Became very nervous and has spells of profuse sweating over chest, neck, arms and palms. Nervousness much worse since menses stopped. Spells of sweating brought on by excitement, and sometimes wakes up at night in a profuse sweat. Heart pounds and beats very rapidly at

spells. Runs an irregular temperature at times. During the last few years has been having considerable bladder disturbance consisting of spells of frequent urination and spasm following urination. Marked constipation.

Patient appears to have lost considerable weight and seems very nervous. Fine tremor of hands quite marked. Tongue coated and breath bad. Some diffuse enlargement of right lobe of thyroid gland. Pulse 108, temperature 99.2. Blood pressure, systolic 100, diastolic 72. Very tender to pressure over liver region and liver dullness is increased. Radiogram of chest shows some enlarged glands in the mediastinum and considerable enlargement of the liver. Heart enlarged, but gives no other physical findings. Metabolic rate plus 24 per cent. Goetsch test definitely positive. Urine shows a trace of albumin. Blood shows hemoglobin 60, red cells 4,000,000, color index 0.75, volume index 0.93, leukocytes 7800, polymorphonuclear neutrophils 60 per cent, small lymphocytes 15 per cent, large lymphocytes 20 per cent, eosinophiles 2 per cent, transitionals 3 per cent; Wassermann test negative.

This patient was given 7 grains of sodium cacodylate intravenously twice a week for four weeks, and then 0.3 gm. sulpharsphenamine once a week for four weeks. At the end of the eight weeks her nervousness and condition in general was very much improved—pulse 86, temperature normal and hemoglobin 84. She was then put on syrup ferrous iodid and at the end of another six weeks she was enjoying better health than at any time for the past ten years.

I have not presented this case to advocate the treatment of all cases of hyperthyroidism with arsenic, but merely to illustrate the beneficial effect of this drug on the anemia which is frequently encountered in these cases.

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Nephritis—With Particular Reference to Diagnosis

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Read Before the Sumner County Medical Society, May, 1924.

When Richard Bright in 1836 described the kidney condition bearing his name he meant those diseases of the kidney accompanied by albuminuria and edema. He had no microscope and no modern chemical knowledge to aid him, but he at least suspected that there was something more to the disease than a local kidney condi-

tion. He had some idea that some underlying cause was at work not only in the kidney, but extensively in the whole body as well. Writers following him, particularly those coming after Julius Connheim (1882), thought mostly of the local kidney condition itself and it was not until the last few years that many observers began to realize how generalized the affection really is.

The term Bright's disease has gradually come to include many types of kidney diseases comprising degenerative, inflammatory and vascular types. Many prefer to just designate all of them nephritis. Christian, Ribbert and others think we can best speak of acute, subacute and chronic nephritis and nephrosis. They realize there is much to favor a more complete classification based on metabolic and other bases but argue that there is no accurate way of fitting all the various clinical pictures into any general scheme. It is true that pathologists still disagree very much on not only the causes, but also the types of various kidney affections and sometimes it appears as if the whole thing was "in an awful muddle." Volhard and Fahr, while admitting their classification does not satisfy all requirements, think it to be valuable from a clinical and therefore the therapeutic point of view. The classification follows:

A. Degenerative Diseases: Nephroses, genuine and of known etiology, with or without amyloid degeneration of vessels.

1. Acute Course.
2. Chronic Course.
3. End Stage—Nephrotic contracted kidney without increased blood pressure.

B. Inflammatory Diseases: Nephritides.

1. Diffuse glomerulo nephritis with obligatory increased blood pressure; course in three stages:

All three may run a course:	{	<ol style="list-style-type: none"> a. Acute b. Chronic without kidney insufficiency c. End stage with kidney insufficiency
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A. Without edema.

B. With marked degeneration of epithelium.

C. 1. Focal Nephritis—Without increased blood pressure.

a. Focal glomerulonephritis.

1. Acute.

2. Chronic.

b. Septic interstitial nephritis.

D. Arteriosclerotic Disease: Sclerosis.

1. Benign hypertension—pure sclerosis of kidney vessels.
2. Malignant hypertension—combination form, genuine contracted kidney—sclerosis plus nephritis.

NEPHROSES

The nephroses, making up roughly 10 per cent of nephropathies are characterized by edema (which is usually very marked and generalized) and absence of high blood pressure. The cause of the damage to the convoluted tubules is in many cases unknown. Many cases, however, are due to infectious agents. Volhard and Fahr found tuberculosis, especially of the bones and glands, to be particularly common. Syphilis, chronic suppurative processes and more rarely diphtheria, typhoid, measles, cholera, yellow fever, are causative agents. Endogenous causes such as pregnancy and cachectic conditions, in which a probable toxin or metabolic product is at work, also produce the condition.

The condition primarily affects the epithelium of the tubules (especially convoluted.) All stages from cloudy swelling to necrosis, such as is found in mercurial poisoning occur. Amyloidosis may be found at autopsy but no clinical findings can be attributed to it.

Mercurial poisoning is often classified with the nephroses but clinically it is characterized by marked anuria and *no edema*.

From the standpoint of metabolism a blood protein content much below normal, due to loss of serum albumin in the urine, is quite common (Epstein). The acid, concentrated (specific gravity 1025-1050) oliguric urine—except at time of disappearance of edema—contains extremely large amounts of albumin, numerous casts and leucocytes but *no blood*. Blood cholesterol is increased in certain syphilitic cases.

Functional tests are usually quite normal. Concentration and dilution ability of the kidneys may be impaired during stages of most active edema.

The prognosis is very good from the point of view of the kidney itself when the edema is eliminated at an early date. Complications such as pneumonia are frequent. True uremia due to actual kidney insufficiency is extremely rare, if ever.

GLOMERULO NEPHRITIDES

Here it is that infection plays its big-

gest role in kidney disease. Volhard and Fahr have stated:

1. The pathogenic cause of every nephritis is almost without exception a bacterial infection.
2. The different forms and stages of nephritis have the same etiology.

While this is true enough occasionally malaria—and other protozoa—and toxic and embolic processes bring on the trouble. Of the bacteria streptococci, or their toxins, are the worst offenders. Pneumococci are close seconds. Cold, trauma, heredity, age and sex have their greatest influence as predisposing causes in these conditions. Just why diphtheria, scarlet fever and such conditions are followed at times by the true nephritides and at other times by nephroses is indeed to be marveled at.

The characteristic symptom is a *high* or at least increased *blood pressure*. The systolic pressure varies from 130 to 200 and is most often above 160. Edema is very little and albuminuria varies from a mere trace to a fair amount, usually not abundant. Blood is always present though occasionally in microscopic quantity. The latter finding is the principal microscopic change.

Often it is in this type of disease that the prognosis and progress can be quite accurately followed by the *eye ground changes*. The appearance and disappearance of the albuminuric retinitis with its cotton wool exudate is the criteria.

It is here, too, that the various kidney function tests (to be discussed) are of the most value not only in diagnosis but also in prognosis and treatment. For when the disease has reached certain stages as indicated by the functional tests there is no hope for the patient and "time alone is the guiding hand."

FOCAL NEPHRITIS

In acute cases the patient usually complains of bloody urine, difficulty in voiding and lumbar pain. The finding of much blood without increase in blood pressure or cardiac hypertrophy is diagnostic. The condition frequently comes on suddenly in the course of a subsiding glomerulonephritis. Edema is still present, in small amounts, but there is no hypertension.

The pathologic changes are those of glomerulo nephritis but more or less in tiny areas. The kidney function is usually normal.

Septic Interstitial Nephritis with large or small areas of lymphocytic infiltration in the interstitial cortical tissue occurs fol-

lowing streptococcic sepsis, but there are no characteristic clinical findings. The same can be said of Embolic Focal Nephritis coming on during the course of and masked by Infectious Endocarditis.

ARTERIOSCLEROTIC DISEASE—SCLEROSIS

It is this type of so-called kidney disease that we as physicians should be most of all interested in at the present time. It is this affliction that is responsible for cardio-renal conditions heading the death rate in America today. Thorough knowledge is of the greatest importance because the stage of the disease (whether malignant or benign hypertension) that the physician first comes in contact with decides almost entirely as to the outcome. Benign hypertension is that type of case where there is an elevation of blood pressure without or with only meager and half hidden signs and causes, coming on now so frequently in the third and fourth decades of life. The cause of the blood pressure elevation cannot be understood for there is very little apparent vascular change; the heart is not or at least very little enlarged; the kidneys, with the exception of small amounts of albumin at times, seem to be in very good condition. The functional tests here very often show the first signs of a break and they appear long before the blood pressure has become greatly elevated and fixed, the heart enlarged and decompensated and the kidney contracted and finally useless. We are still very much in doubt as to why the condition ever appears. It is all well and good for some to blame it all on arterio capillary spasm or fibrosis but they have yet to demonstrate not only its presence but also its cause. Too much protein, too much meat, too little meat, too much food, too little food, too little exercise, focal infection, etc., have all had their advocates. While some or all may at times be factors the facts are that only the last, if any, seems to have causative influence. It is extremely interesting and tempting to dream and speculate on various metabolic disturbances as being the etiological factor, but that is as far as we may yet go. Sufficient it to say that hypertension in the benign stage before there is kidney insufficiency and before the diastolic blood pressure has become fixed at or above 120 that proper treatment will in the majority of cases result in a cure or arrest and that proper treatment will at least in the majority of cases prolong life. Conversely, in malignant hypertension all the treatment in the world will not cure and probably

will not greatly prolong life. When physicians come to regard and so impress people that hypertension is as serious and as demanding of thorough treatment as is tuberculosis we may expect some drop in its death rate.

KIDNEY FUNCTIONAL TESTS—NEPHRITIS

We now come to the most interesting and modern phase of the whole subject; the kidney function tests. The phenol sulphone-pthalein, concentration and dilution tests with their various test meals, blood chemistry, urea, uric acid and creatinin and anemia all have an important place. Each of these tests has at some time or other been advocated as a test of some particular part of the kidney but as Mosenenthal says of the pthalein test it is perhaps better to consider them as more or less accurate tests of the whole kidney and not of some particular portion.

The Phenolsulphone-pt halein of Rowntree and Gerrharty is of value because of its extreme simplicity and accuracy. It is perhaps the most universally used of all the tests and yet it is often misinterpreted. The opinion of many men is that unless the pthalein is below 20 per cent. it is of very little practical value. All types of nephritis, passive congestion, obstruction of ureter or bladder outlet will result at times in decreased pthalein excretion. It is therefore necessary to use considerable judgment before decision is made. Thus a nephrosis before the edema clears up is accompanied by a low excretion. A normal excretion occurs after the edema has disappeared. Passive congestion and the other conditions mentioned, before their removal give low and then later normal pthaleins. Hyperactive kidneys in case of compensatory function when one kidney is out of commission give abnormally high values (80 and above). At present it is known that a reading below 20 means marked renal insufficiency and a very poor prognosis. This is true in spite of the fact that some few cases with a 0 output have lived for several years.

BLOOD CHEMISTRY

Uric acid is the first element to be increased in the blood in renal insufficiency. Thus, Mosenenthal found that in a large number of cases observed over a long period of time that there was first a gradual increase from normal to three mgs. per 100 c.c. up to five mgs. Later results as high as 22 mgs. per c.c. were present. It must be remembered that there are other diseases besides kidney diseases presenting this pic-

ture—gout and leukemia notably. The practical value of this determination is enhanced by its not altogether established accuracy (method of determination).

Urea. This gradually increases—sometimes over a long period of years—to 65 mgs. per 100 c.c. After this it rapidly accumulates coincidentally with rapid loss of kidney function. Once above 65 the final result is usually inevitable and rather close at hand. Cases have been described with very much higher readings and one case with a urea of over 450 mgs. lived one year under careful treatment.

Creatinine. This increased toward the latter stages from a normal of one to one and a half mgs. per 100 c.c. to 5 mgs. After this it is no longer possible for the patient to recover. At least one case did live for nearly one year with a value of 15 mgs. This is by far the most accurate test of kidney function (chemically) and to a marked degree parallels the pthalein excretion.

It is easily understood why the various blood constituents increase in nephritis when it is known that the normal kidney excretes 100 per cent of creatinine, 80 per cent urea, and 20 per cent uric acid in an hour when a certain definite amount is injected into the blood stream.

McLain, Majors and others have advocated injection tests of urea or creatinin as most reliable methods for testing kidney function. Others do not regard injection of these substances any more valuable than simple blood determinations.

It must not be assumed that the uric acid, urea, and creatinine are the offending substances. Rather they are only indicators of the retention, or at least the presence of some as yet unknown substance or substances which bring about the clinical pictures. It is better to consider true uremia as occurring only when these indicators are increased. Nephritic headaches, convulsions and arteriosclerotic spasm as well as cerebral softening can only be differentiated accurately by means of these blood chemistry methods.

FUNCTIONAL TESTS

There are many other means of testing kidney function. All have the same general idea. Many advise special diets for certain test days but this does not seem to give any more information than the less elaborate methods. One of the best methods is that of Volhard and Fahr. In this plan both the concentration and dilution

power of the kidneys are tested on the same day.

Volhard's Concentration Test:

Diet. 8 a. m. Roll 80 grams, butter 20 grams, marmalade.

10 a. m. Roll 80 grams, butter 15 grams, one egg.

12 M. Meat 100 grams, mashed potato or rice 200 grams, vegetable 100 grams, fruit (fresh or stewed) 100 grams.

4 p. m. Roll 80 grams, butter 20 grams,

marmalade 40 grams.

7 p. m. Roll 80 to 120 grams, butter 10 to 20 grams, meat 50 to 100 grams, two eggs.

Plan. 7:30 a. m. Bladder emptied; urine discarded.

7:30 to 8 a. m. 1500 c.c. fluid (milk, coffee diluted with milk, weak tea, peppermint water or anything mostly water).

Urine collected at regular intervals and examined as below:

Example:

<i>Normal</i>			<i>Abnormal</i>			
<i>Time</i>	<i>Volume C.C.</i>	<i>Sp. G.</i>	<i>Fluid</i>	<i>Volume</i>	<i>Sp. G.</i>	<i>Fluid Intake</i>
7:30 a. m.	150	1028	1500 C.C.			1500
8:00 a. m.	150	1028		170	1004	
8:30 a. m.	90	1012	No other	290	1005	No more
9:00 a. m.	410	1004	fluid after	230	1003	fluid
9:30 a. m.	500	1002	7:30 a. m.	250	1004	
10:00 a. m.	285	1003		180	1008	
11:00 a. m.	60	1018		218	1007	
12:00	65	1020		140	1010	
2:00 p. m.	95	1025		105	1010	
4:00 p. m.	70	1028		160	1014	
6:00 p. m.	100	1024		130	1012	
8:00 p. m.	50	1025		250	1012	
8:00 a. m.	210	1031		35	1017	

In normal individuals fluid ingested is largely excreted within two hours. During this time the concentration of the urine rises. But in cases such as the above there is neither adequate secretion, concentration or dilution. That is, the concentration remains fixed between 1004 and 1012 during the day. The night urine is furthermore

increased.

Another more elaborate but very effective test day is that of Mesenthal. One will often find that before any of the other methods of testing renal function show any impairment that the concentration and dilution power of the kidney is lost. Consequently these tests are of great value.

MOSENTHAL'S RENAL FUNCTION DAY—*Interpretation, Concentration and Dilution Tests:*
(Patient eats usual habitual diet)

<i>Criterion</i>	<i>Normal</i>	<i>Significance</i>
Maximal Sp. G.	1920 plus.	Ability to concentrate urine. High or higher than normal ability is all right provided urine is adequate. Definite index of renal function independent of diet. Long life is possible even with low Specific Gravity provided polyuria compensates (Diabetes Insipidus and few cases Chronic Nephritis).
Fixation Sp. G.	Variation 9 degrees.	Normal characterized by variance Sp. G. in different specimens. (a) High Specific Gravity—Fixed Normal—Too little fluid. Diseases characterized by edema, oliguria, especially myocardial insufficiency and acute or chronic nephritis. (b) Low fixed Specific Gravity. Diabetes Insipidus. Chronic Nephritis.

Marked Anemia.
 Elimination of Edema.
 Cystitis.
 Pyelitis.
 Polycystic Kidney.
 Prostatic Hypertrophy.
 Urethral Stricture.
 Paralysis Bladder (Tabes).

All do well as long as polyuria compensates.

Nocturnal Polyuria. Usually 400 C.C. or less. In some cases as high as 750 C.C.

Means kidney is putting forth greater effort than normal. Overstrain may cause fatigued functional damage if continued. May be reduced by curtailing salt and protein. Ambulatory patient on his normal diet we are in position to judge as to effect of customary food and habits and to advise intelligently as to modification of diet. Chemical tests of urine and blood tell what changes to make in food.

In addition at times sodium chloride, nitrogen and urea are estimated or determined in the various urine samples. If the sodium chloride is in excess of five grams in twenty-four hours or if there is edema and decreased concentration it should be removed from diet. Also if nitrogen is more than five or six grams it should not be necessary to further restrict protein. Thus, the test also has advantages from a treatment standpoint.

SUMMARY

1. It is of practical value from the standpoint of diagnosis—as well as that of prognosis and treatment—to classify nephritis in the manner of Volhard and Fahr.

2. Diagnosis of nephritis should not be based on a simple urine analysis, but should include phenolsulphonethalein tests, blood chemistry—urea and creatinine at least—and concentration and dilution tests.

3. Attention to etiology should be more observed than is customary.

4. The arteriosclerotic types of kidney disease deserve the most careful and accurate attention if we are to reduce their death rate.

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Diagnosis and Treatment of Earache

DR. LA VERNE B. SPAKE, Kansas City, Kan.

Read before the Northeast Kansas Medical Society, March 27, 1924.

Earache is present at some stage of practically every case of acute middle ear inflammation, may be present at times in chronic non-suppurative ears. It is generally found in acute diseases of the membrano-cartilaginous meatus, or it may be due to a reflex phenomenon from some lesion widely separated from the ear.

Pain in acute otitis media. The earache is like the pain of a severe toothache, throbbing in character, subject to exacerbation of intensity, but of great severity, one of the most unbearable types of pain, onset sudden, quickly attaining a degree of intensity, which makes sleep impossible, due either to increased engorgement of

tympanic vessels, or to pressure and distention by fluid (serum or pus) collecting in tympanic cavity. Pain is generally of a short duration subsiding quickly by spontaneous rupture of the drum membrane. High temperature in babies should make us think of three conditions: 1, Toxemia (food); 2, Pneumonia; 3, Otitis media.

Pain in chronic catarrhal otitis media. Patient gives history of a more or less frequently having an attack of otalgia, not as severe as acute otitis media, drum membranes show characteristic changes in chronic otitis media, but no sign of acute inflammation. Pain probably due to an extension of chronic middle ear inflammation.

Pain in furunculosis. Gradual onset, beginning with soreness about the canal, later changing to constant throbbing pain of

a very severe type. Pain increased by yawning or opening the jaw or chewing. Pain increased by any manipulation of the ear. During the summer months we have a mild epidemic of furunculosis, due to going in swimming in the pool, around Kansas City.

Reflex Pain. Patients are constantly seeking relief for a severe earache, in whom physical examination shows ears to be practically normal. In such cases we must carefully examine the teeth, mouth and the nose for acute lesions, which may be the underlying cause. Dental caries is one of the most common causes. Reflex earache is also found in acute tonsillitis—peritonsillar abscesses and malignant diseases of base of tongue. Reflex earaches are also found in foreign bodies in the esophagus. We have had three such cases in the last year, one a girl five years old with pin lodged in esophagus at level of crico-pharyngeal. Pin embedded in the lateral folds point toward larynx with the head embedded in opposite walls of the esophagus, of three days standing. Pain in the right ear was the most constant symptom, plus difficulty in swallowing, which was entirely relieved by the removal of the pin. Second case, a young man with a chicken bone in the esophagus which had caused some ulceration of the mucous membrane, the earache was not relieved by the removal of the foreign body, nor was it relieved until the ulceration had cleared up. Third case, man with a chicken bone lodged in the lateral wall of the pharynx below the tonsils, earache was a constant symptom until the removal of the foreign body.

When the pain is located around the ear and when the ear is negative, the pain is due to sphenopalatine neuralgia. The sphenopalatine ganglion is situated in the sphenoidal fissure and is more often involved from nasal conditions than those totally removed from the nasal anatomy. In no other part of the body is a sympathetic ganglion or sensory ganglion so exposed to surface influences. These facts bring these associated nerves with all the various questions arising with them as headaches, eye disorders, and earaches to our daily attention.

Reviewing the anatomy of the sphenopalatine ganglion from Dr. Sluder's work on "Headaches of Nasal Origin" we find it is situated in the upper portion of the sphenomaxillary fossa in close proximity to the sphenopalatine foramen and just beneath the maxillary branch of the trigeminal

nerve. Two sensory roots from the lower margin of maxillary nerve, motor root—great superficial petrosal nerve, which probably carries some sensory fibers, from facial nerve in facial canal—passes through hiatus fallopius and a groove in petrous portion of temporal bone and then under gasserian ganglion to reach cartilage occupying the middle lacerated foramen, here it is joined by sympathetic branch root, great deep petrosal, a branch of carotid plexus. The two great petrosal fuse over center of lacerated foramen to form vidian nerve, pass through the vidian canal enter sphenomaxillary fossa to join sphenopalatine ganglion."

Branches:

1. Ascending—orbital branch ethmoid.
2. Descending.
 - (a) Large posterior palatine.
 - (b) Posterior palatine.
 - (c) Accessory posterior palatine membrane.
3. Internal branch.
 - (a) Posterior superior nasal.
 - (b) Nasopalatine.
4. Posterior branch.
 - (a) Pharyngeal.

The neuralgic syndrome—the patient presenting all the features, will tell you of a coryza of a lesser or greater severity—sometimes astonishingly slight and often forgotten, or it may have produced a post-ethmoid sphenoidal empyema of greater intensity. A short time later pain begins at the root of the nose, in and about the eye, upper jaw, and teeth, sometimes the lower jaw, teeth, and extends backward to the temple, and about the zygoma, to the ear, causing earache, emphasized at the mastoid, but always severest at a point five c.m. back of the mastoid, then extending backward by way of the occiput and neck, may extend to the shoulder sometimes to the arms and hands, occasionally may have aching throat, itching of the hard palate, teeth feel too long, a metallic sense of taste, the arch of the soft palate feels higher than the opposite side.

The sympathetic syndrome. A patient in good health is for the first time, regardless of the seasons of the year, seized with a severe and protracted sneezing accompanied by much nasal congestion, hot secretion so profuse that at times will have to resort to a towel for a handkerchief, commonly called "terrific cold." During the past winter we have seen so many patients with the above symptoms whose main symptom was earache, more marked over

the mastoid and slightly posterior, with a tender sore spot posterior to the angle of the jaw just below the tip of mastoid. Examination of the nose, throat and ear being negative. The following line of treatment was carried out; the ganglion is cocainized by an applicator dipped in adrenalin chloride and dipped in cocain crystals and placed under the tip of the middle turbinate for from two to five minutes, is then moved over the sphenopalatine foramen just posterior to the tip of the middle turbinate and allowed to remain there five minutes. Then from two to ten per cent solution of silver nitrate is mopped over the membrane covering the sphenopalatine foramen. This is generally sufficient to stop the pain temporarily. The treatments are continued every two to four days or weekly, as deemed necessary. When the case is of a more chronic nature injection of the ganglion with 95% alcohol and five per cent phenol is injected into the ganglion, by the use of a straight needle through the posterior tip of the middle turbinate—Sluder method. Or Arthur E. Smith's method may be used, a special needle three and one-half c.m. in length hub 4 c.m. has a curvature sufficient to allow needle to pass over the tuberosity in the right direction. A syringe is held in pen fashion, needle is inserted in the mucous membrane distal to the upper third molar or distal to the tuberosity of the superior maxillary bone; needle is advanced upward, inward, backwards to a depth of $2\frac{1}{2}$ c.m. Ninety-five per cent alcohol is used after cocaine anesthesia. This is much easier method than Sluder's where a marked deviation of septum is present.

Earache due to mastoiditis if of primary origin, requires early incision of drum, ice coil for twenty-four hours, absolute rest—two hour pulse and temperature chart, and watching patient for a few days. If mastoiditis complicates otitis media and the following indications arise, mastoidectomy is indicated.

1. Auricular displacement so commonly seen in children, with edema or subperiosteal abscess.

2. Vestibular irritation, nystagmus, vertigo.

3. Tenderness on pressure—extending beyond the limits of antrum, showing no tendency to diminish, within five or six days, following incision of drum.

4. Marked variation in puss discharge, maximum flow too great to be explained by tympanic lesion, pain and tenderness.

5. Mastoid symptoms have been present, and having disappeared, reappears; a discharge which resists all rational non-operative treatment, justify the hypothesis of necrotic area beyond limits of antrotympanic cavity. And operation is indicated to save the integrity of the organ, and to prevent serious impairment of function.

Treatment of furunculosis: Incision of furuncle—gauze pack saturated with 12% phenol and glycerine, or cresatin pack seems to be a good analgesic and antiseptic, after drainage is well established, alcohol or mercurochrome wicks.

Treatment of pain in chronic otitis media—the correction of nasal deformity, sinus diseases, infected tonsils and adenoids.

Treatment of Earache: Every acute ear we believe should be considered a serious and dangerous condition, because of the complications which may arise, such as deafness, C.C.O.M., C.P.O.M., meningitis, sinus thrombosis, etc.

Early incision of drum membrane. If every drum was incised within first twelve hours, I believe a mastoidectomy would be a rare operation. The best anesthetic for incision of ear drum is nitrous oxide, the best local anesthetic is equal parts of menthol, phenol and cocain hydrochloride painted over drum. The next step is to keep the incision patent, alcohol 75%, boric acid grs.xx to 1 oz. on gauze wicks, to keep canal clean and dry, we believe that the wicks also act by capillary attraction, and should be changed as often as saturated. Mercurochrome 1% is also a good antiseptic for use in the canal.

Suction gently applied to external auditory canal will help keep the incision patent and promotes hyperemia and stimulates phagocytosis. Suction to each nostril, after the use of adrenalin and cocain, promotes drainage through eustachium tube, the natural drainage canal for middle ear. Followed by argyrol or neosilvol 10 to 15% solution, or when the treatment is to be carried out in the home, 2 to 4 drops in each nostril every two hours following each treatment of the ear.

Occasionally in an ear with only a slight inflammation of the drum with no bulging, the following prescription gives relief: Menthol 5 grs. adrenalin chloride 1:1000, drams 1, in one per cent solution of cocain, with the argyrol naso pharyngeal treatment might abort an otitis media, hot gargles of Dobells and alkaline solutions help to relieve the naso-pharyngeal congestion.

We must not overlook the fact that the

children generally need a good tonic. Dickey's iron tonic, we believe to be fine, the Liquor Ferrii Albuminate, and Cod-Liver Oil.

The question of the removal of tonsils and adenoids in acute otitis media is still an open one in my mind, especially during an attack of acute purulent rhinitis, adenoiditis or tonsillitis.

—R—

Modification of Milk for Infant Feeding

DR. HARRY W. DAVIS, Plains, Kan.

Read before Meade-Seward County Medical Society.

There are so many circumstances that make it necessary to feed infants other than mother's milk, that the subject should be better and more thoroughly understood by the average physician.

By modification we change the composition of cow's milk to suit the digestion of the infant. While it is true that some babies have been and still are fed on whole milk, it is an uncertain, as well as unscientific, method and in the vast majority of cases will be found unsuitable.

In order to be brief I will present only one method of modification—the one that is superior to all others, in that we know exactly what we are feeding and can obtain any combination of food elements we desire by using cream, skim milk, sugar and water.

A quart of milk, after standing about six hours, is separated by a line, called the cream line, into the cream at the top and the skim milk at the bottom. The cream contains 16% fat, while the skim milk contains none. They both have sugar, 4.5%, and protein, 3.2%. It is essential to remember this: fat 16, sugar 4.5, protein 3.2.

To still further simplify matters we will make a 16-ounce mixture. Now the number of ounces of cream used in a 16-ounce mixture gives the percentage of fat, *i. e.*, one ounce cream equals 1% fat; 2 ounces of cream in a 16-ounce mixture gives 2% fat, etc. You see how simple it is. It is understood, of course, that all the cream down to the cream line has been poured off and mixed.

Now let us use the skim milk, as it is from this that we obtain our protein. In doing so, however, let us remember that the protein content of cream is unalterable, that is, it, as well as the skim milk, plus cream required is 5 times the percentage of protein required. Let us remember that figure 5 for protein. Five times the percentage of protein desired less the amount in ounces of cream give the number of ounces

of skim milk. Suppose you want to feed fat 2%, proein 1%. Since 1 ounce of cream in a 16-ounce mixture gives 1% fat, we would use 2 ounces of cream. For 1% protein we would say 1 times 5 is 5 ounces of skim milk, but the cream also contains protein so we subtract the number of ounces of cream used, which was 2, and we have left 3, the correct amount of skim milk to make our 16-ounce mixture contain 1% protein.

It is necessary, of course, to add sugar, since human milk has about 7% and cows milk only 4.5%. This percentage of sugar is in the cream and skim milk that we have used. The percentage of sugar furnished by the cream and skimmed milk is one and one-half times the percentage of protein desired. If we use 1% protein then 1 times 1½ equals 1.5 sugar, already in the mixture. In order to approximate human milk we would want to raise this to say 6%. Now we have to refer to a sugar table and we find that one level tablespoonful of sugar raises the sugar percentage 2.4%. We desire 6% and already have 1.5% leaving 4.5% to be added. We, therefore, add 2 level tablespoonfuls, which is 4.8%—close enough for all practical purposes. We then dilute with water to make up our 16 ounce mixture.

It now becomes necessary to know how much of each food element to use at a certain age. It is a safe rule to underfeed at first but to increase as rapidly as tolerance is established. For the new born, after twenty four hours of water, 1.5% fat is used and gradually increased till it reaches 3% at the end of the third week. The infant can be kept very nicely on this until 9 months, 5% sugar increased to 7% at the end of 9 months. One per cent protein—increased to 2% at 9 months is generally given. At 9 months the baby takes whole milk ¾ and barley water ¼ with 4 level tablespoonfuls of sugar. At the end of a year he goes on whole milk with no further modification.

Some special points might be mentioned that help along the rocky road of infant feeding. At the fourth or fifth month babies seem to do better by adding a cereal diluent instead of water, and oat or barley water are nice to use when more carbohydrate can be assimilated and often results in a gain of weight and well being when used intelligently; and will prevent, to some extent, the formation of hard curds.

The curd of cows milk is tough and leathery, and many times gives much

trouble. Boiling the milk for three minutes will make a much softer curd and this is good practice when any trouble is experienced as in weak, delicate infants. Sodium citrate will prevent curd formation, using a grain for each ounce of milk and cream in the mixture. Lime water also helps but it is of more value where there is vomiting.

Of sugars, ordinarily, it makes very little difference. Cane sugar is the cheapest but the disadvantage is its sweet taste which, as the child grows older, develops his sweet tooth to an excessive degree. In case of sugar fermentation, a dextrimaltose preparation is good while a liquid maltose will overcome a constipation, or an increase in the amount of sugar will do the same thing. Lactose or milk sugar answers the average case very nicely.

The experience and judgment of one physician cannot be passed on to another and in infant feeding these two qualities are paramount. However, nature has provided the baby with considerable power to adapt himself to rather wide limits in the changes of his food, which is of vast assistance to those in charge of his welfare.

—R—

UNIVERSITY OF KANSAS CLINICS

Clinic of Dr. Nelse F. Ockerblad

SOLITARY KIDNEY WITH PYELONEPHROSIS AND DILATED AND STRICTURED URETER

Anomalies of the kidneys and the ureters were not so long ago considered curiosities, and were discovered at necropsies or in the dissecting room. To discover such malformations and demonstrate them in the living patient is one of the triumphs of modern diagnostic methods. I shall present a case of solitary kidney proved to exist in a living patient.

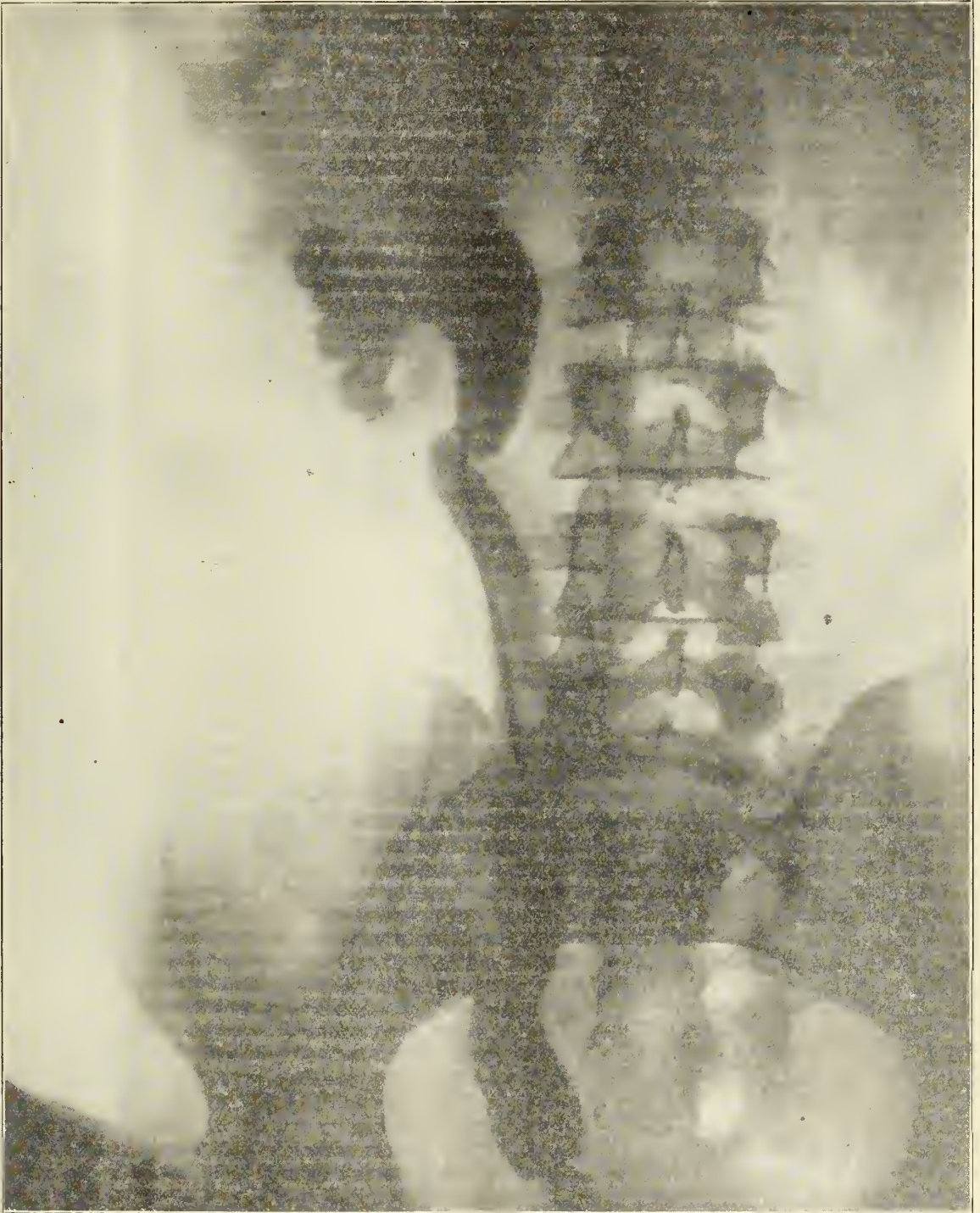
A. M., a white male, aged 36, was admitted to the Bell Memorial Hospital on May 9, 1922. His chief complaint was burning and frequency of urination with weakness and loss of strength. The onset of his present illness dates from February 13, 1922, when he was taken down with influenza. He was ill in bed for about two weeks and made a very slow recovery. During the tedious convalescence he began to have a urethral discharge. This was followed shortly by frequency of urination, associated with pain and difficulty. Frequent attacks of tenesmus annoyed and harassed him greatly. He gave a history of having had a gonococcus infection of the urethra at the age of 18 and a second infection at the age of 22. This second in-

fection was followed by a posterior urethritis, vesiculitis and prostatitis which lasted for some months. He stated that there had never been a time during the 18 years since his first attack of gonorrhea that he had been free from urinary symptoms.

Physical Examination. The patient is a rather anemic appearing man of about the stated age. He lies comfortably in bed with no complaints of pain or distress, but he has the appearance of being worn and tired from a long illness. There is a systolic murmur heard over the tricuspid area. Blood pressure is 115/60. Pulse is regular, not rapid, of good volume and tension. The abdomen is negative. There is no fever. There is no discharge from the urethra at the present time. There is a right inguinal hernia and a markedly relaxed ring on the left.

Rectal examination shows a prostate about normal size, but somewhat fibrous. The seminal vesicles are made out as very hard tortuous sclerotic cords which are tender on pressure. They are seemingly fixed in position. The urine was found to be pale and cloudy, acid, specific gravity 1013, albumin was present, much pus and a few red blood cells. Blood examination showed 3,600,000 red blood cells, 80% hemoglobin, and 9,000 white blood cells.

Urological examination. A No. 24 Brown-Burger operating cystoscope was passed readily to the bladder. Bladder capacity was found to be 120 c.c. The mucosa is in a state of subacute cystitis throughout. There is present in the dependent portion of the bladder a quantity of flocculent debris. The right ureteral orifice can readily be made out as a pouting edematous ring. The left ureteral orifice cannot be found nor are there any trigonal markings on this left side. A large Garceau catheter was introduced into the right ureter which was found to be strictured about 3 cm. from the bladder opening. The catheter fitted tightly into the orifice so that there was no leakage around it. Indigo carmin was then injected intravenously and the area where the left ureteral os should have been, was carefully watched through the cystoscope, but a good while after the dye made its appearance in the catheter from the right kidney, none had appeared in the bladder. The cystoscope was then withdrawn and the catheter was left plugging the right ureter and draining this kidney. The bladder was next carefully emptied with a small rubber catheter and this ca-



theter left in the bladder to catch any urine that might make its way into the bladder. A phenolsulphonephthalein test was then started and collections made for one hour. At the end of an hour, there was obtained from the catheter in the right ureter 120 c.c. of turbid pus laden urine which con-

tained 35% of the phenolsulphonephthalein. During the same time no fluid or urine was obtained from the small rubber catheter which drained the bladder. A pyeloureterogram was made at another sitting. The kidney and ureter took 90 c.c. of sodium bromide solution to fill it and even then

there was no sensation of fulness or pain to the patient.

DISCUSSION

The urological examination and the x-ray findings prove that this is a case of solitary kidney. There have been less than 50 such cases reported in the literature and only a very few have been demonstrated in living subjects. The proof rests mainly on the fact that no ureteral orifice could be seen or demonstrated by a cystoscopic examination. The absence of a ureteral or trigonal markings on the left side. The absence of any secretion in the bladder when the right ureter was plugged with a tight fitting catheter. No dye substance came through on the left. The x-ray shows no kidney shadow in the region of the left kidney area. The pyelogram shows an enormously dilated ureter and pelvis. The kidney pelvis is that of the reduplicated type.

What caused the patient to be ill? A combination of circumstances. The origin of his trouble probably was with the second gonococcus infection at the time he had the severe seminal vesicle and prostatic infection. When it is recalled that the seminal vesicle is in close contact with the lower one inch of the ureter, it can be readily seen how an inflammatory disturbance of the vesicles could involve the ureters. The resulting stricture of the ureter did not trouble much until a severe systemic infection like influenza came along and called upon this one kidney to do an enormous amount of work.

The stasis produced by the stricture had the field plowed and harrowed and ready for the infection which the influenza furnished. The result was a pyelonephritis.

This case illustrates the great value of a careful urological examination. The most interesting part of this case is, that dilating this strictured ureter, and lavage with silver nitrate solution cured this patient. At the present time (two and one-half years later) he is still driving his truck.

—R—

Importance of Hematuria as a Symptom

For the present communication, Arthur L. Chute, Boston (*Journal A.M.A.*, Oct. 25, 1924), has gone over a series of 100 cases of hematuria to see how they compared with those reported previously. The source of the bleeding was the prostate in fourteen cases; the bladder in forty-six cases; the ureter in seven cases, and the kidney in forty cases; in seven patients there was a

double lesion, thus accounting for 107 lesions in 100 cases. Of the fourteen bleeding prostates, none were of the fibro-adenomatous type, and gave no evidence of malignancy; one hematuria of prostatic origin was the result of a prostatic abscess of non-venereal type, while the remaining four were due to malignant disease, nearly one-third of the cases. In the forty-six cases of bleeding of bladder origin, twenty-five came from a bladder growth that was of the broad-based, infiltrating type—the type that ordinarily is found to be adenocarcinoma microscopically; eleven from a bladder growth of papillomatous type; in ten of these eleven cases it was that type of papilloma usually found by the microscope to be papillary carcinoma. In this sort of papilloma, the growth often fills a good part of the bladder, and the tendency to recur is marked; it is of low malignancy in some cases, and of high malignancy in others. Only one of these eleven papillomas was clinically of the simple or benign type, which seemed to be suitable for fulguration. The other thirty-five were actually malignant or potentially so. In other words, more than 75 per cent of the hematurias of bladder origin were due to growths that were actually or potentially malignant. In the seven cases in which the hematuria was of ureteral origin, there were no instances of malignant involvement. In some of these instances, however, the hematuria did indicate a condition that was serious enough to lead to the destruction of the kidney. In the forty cases of hematuria that were of renal origin, the incidence of malignancy was relatively small; there were but five cases of new growths, or 12 per cent; these growths were all hypernephromas. Fortunately, these growths frequently show a tendency to bleed in a relatively early stage of the disease. Seven cases presented renal tuberculosis, a lesion that means the destruction of the kidney in almost all instances; besides this, there were eight instances of hydronephrosis, six of pyelonephritis, and ten of renal stone. Taken as a whole, we find that hematuria has in this series of cases been due to the presence of malignant disease in 44 per cent; that in a number of other instances it has indicated a condition which, though not malignant, would probably lead to the ultimate destruction of the organ involved, and, in some instances, possibly to the loss of the life of the patient as well.

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W. E. McVEY, M.D. - - Editor

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Since every member of this society is also a member of the American Medical Association, it is not out of place to consider in these columns some of the problems presented to the delegates sent to the annual meeting.

When the reorganization of the federated societies was under way, it seemed wise and necessary that a uniform plan for the organization of state societies should be adopted. Several drafts of a uniform constitution and by-laws for state societies were considered and finally one was adopted that seemed to most completely meet the requirements. In some particulars it was not as suitable for the western and more sparsely inhabited states as one of the others. However, it is sufficiently flexible to prove efficient and satisfactory. Some minor modifications were necessarily made in some instances, but the uniform basis was maintained. The most vital part of this plan of organization is the county society unit. It is through the county society, and through it only, that membership may be obtained.

For some reason, however, the plan which was adopted as most suitable for state organization was not also adopted for the national association. While the county

society is the only portal of entry for membership in the American Medical Association it is, to a more or less extent, ignored in the affairs of that body.

Delegates to the A. M. A. are limited in number and these are apportioned according to the membership in the state societies but, since this does not take into account the number of county societies in any state, it is a representation of the state society rather than the county unit. In order to carry through the county unit idea, delegates to the A. M. A. should be apportioned according to the number of county societies in the state, or if numerical strength must be a consideration, then the delegates should be apportioned according to the number of representatives entitled to a seat in the House of Delegates of each state society.

There are other features in which the organization of the national body departs from the uniform plan adopted for state organizations. State societies are divided into districts and from each district a councillor is elected. The council, composed of a councillor from each district, acts in the general capacity of a board of trustees, although some states also have a board of trustees, probably to comply with legal requirements. It matters less that it is called a council or board of trustees and that its functions usually are, and should be, those of a board of trustees, than that it is really a representative body. It may be a legal requirement that the A. M. A. should have a board of trustees, but it is doubtful if any legal restrictions would prevent the members of the board of trustees being elected from districts composed of state societies. In order to carry out the plan of uniformity in organization the states should be grouped into districts and one trustee be elected from each district.

The board of trustees, if it must be so called, should bear the same relation to the state societies that the council, essentially board of trustees, of the state society bears to the county societies.

While the secretary is urging that uni-

formity be maintained in the constitutions and by-laws of state organizations there seems to be a tendency in the national body to depart further and further from those plans. At the last meeting the following amendment to the by-laws was proposed:

"At some time between the first and fourth day of the Annual Session of the House of Delegates, the chairmen and the secretaries of the various sections of the Scientific Assembly and the members of the Council on Scientific Assembly shall meet at the call of the chairman of the Council on Scientific Assembly and shall prepare and present to the House of Delegates, at their meeting on the fourth day of the Annual Session, three nominees for the office of President-Elect and two nominees for the office of Vice President, and the nominees so presented shall be the only ones eligible for election."

The House of Delegates is the only representative body in the organization. Through this body the membership is supposed to express its choice in the election of officers and its opinion upon matters of government. There is no sufficient reason for delegating the selection of a president and vice president to any other body. If there is any satisfactory reason for restricting the choice of the House of Delegates to three men, selected by the officers of the scientific sections, such reasons are not stated in the report of the proceedings.

It is a reasonable prediction that those members of the House of Delegates that are representing state societies will not willingly surrender one of the most important privileges of that body.

— R —

Now that the election is over and the vote indicates what the politicians are wont to call a "Republican Landslide" it may be well to recall the apparent lack of interest manifested by the medical profession. The Klan propaganda may have interested some of the fellows but most of them have had the measles, whooping cough, or the itch

and are not much agitated by these frequently recurring epidemics of reform—especially at ten dollars per.

It was long ago demonstrated that as a rule, the Democratic members of our profession vote the Democratic ticket and the Republican members the Republican ticket, unless there is some very unusual issue of particular interest to medicine, and even then they are not easily pried loose from their party affiliations.

There was really no such issue in this election, at least none that developed any particular controversy. The Republican Central Committee, at the last minute, seemed to have an idea that the doctors were doubtful of Mr. Paulen's intentions in regard to the Board of Health. A letter was therefore sent out to the doctors assuring them that if Mr. Paulen was elected he would certainly maintain a board of health. This was superfluous inasmuch as the laws provide for a board of health and prescribe its duties; and very few, if any, seriously believed that Mr. Paulen would be antagonistic to the Board of Health or that he would in any way endeavor to diminish its efficiency. From all reports, he has been consistently favorable to legislation providing for stronger and better health protection.

Other than the usual partisan sentiment, there was no opposition to Mr. Paulen except from the medical profession of his home county. A circular letter charging him with Christian Science affiliations—or rather, that he was dominated by Christian Science influences—was distributed widely. This circular purported to be an expression of the sentiments of the Wilson County Society, but a telegram from one of the members stated that it had not been approved by that society and that the doctors there were supporting him. No official report of the meeting at which this action was said to have been taken has been received so the authenticity of the circular can neither be affirmed nor denied. How-

ever, no effect upon the voters was evidenced in the result of the election.

Except for the few members of the Klan, the medical profession is unanimously in favor of religious liberty. A Christian Scientist in the Governor's chair can be just as considerate of the rights and privileges of the people of the state, as much concerned in the conservation of the public health; and as much interested in the efficiency of the state's public institutions—penal, educational and eleemosynary—as a Presbyterian, a Methodist or a Catholic.

—R— SOME RECENT DECISIONS

Some decisions recently handed down by our supreme court may prove to be of considerable importance in future trials for malpractice. It has happened occasionally in the experience of the Defense Board that a judgment has been rendered against the defendant doctor for one dollar and costs. The interpretation has usually been that while the jury believed the plaintiff was not entitled to any judgment for damage, the doctor was getting off easy and should be willing to pay the costs.

If one does not misinterpret a recent decision, these cases, when they reach the supreme court, will be ordered retried. In this particular case two members of the society were sued for malpractice, it being alleged by the plaintiff (quoting hereafter from the text of the opinion):

"that after removing his right kidney on May 30, 1919, they had negligently left within the incision a surgical gauze sponge four or five inches long and about an inch and a half in diameter, which remained there without discovery until August 7, 1919. A verdict was rendered in favor of the plaintiff, awarding him however only one dollar. He appeals, relying upon the proposition that inasmuch as the verdict necessarily amounted to a finding of negligence the failure to allow him substantial damages showed passion and prejudice on the part of the jury and was contrary to the evidence.

"Where a wrong is found to have been committed which obviously resulted in substantial injury a verdict for merely nominal damages is not allowed to stand.

"Here the jury obviously concluded that

the sponge was inadvertently and negligently left within the incision but that no actual injury resulted from it. One of the defendants testified that he did not intend that any sponge remain in the incision after June 4; that he would not have left one in if he had known it was there; that all ought to have been taken out then; that if he had known it was there he would certainly have taken it out. There were conflicts in the evidence. The plaintiff testified that when he left the hospital on June 18 he was told he was ready to go home; that neither of the defendants said a word to him about returning, and that he was given instructions for his own treatment. According to the defendants' evidence when he left on June 18 he was told to return within a week or ten days for examination and promised that he would, but failed to do so. This dispute must be regarded as having been settled in favor of the defendants, so that any consequences of the incision going without examination after June 18 may be attributed to his own failure to follow instructions. The plaintiff's evidence affirmed and the defendants' denied that when the sponge was removed it had a foul odor. The plaintiff described his condition and feelings before and after the operation and before and after the removal of the sponge, telling of various pains and symptoms which he attributed to its presence. He introduced medical evidence tending to support his contention in that regard, but against this the defendants produced the testimony of themselves and of other doctors that the leaving of the sponge within the incision was not likely to cause any injurious results and that whatever unfavorable conditions afterwards manifested themselves were not attributable to its presence—on the contrary that it was of actual benefit in promoting the healing process and hastening a recovery from the effects of the operation.

"The rule that the testimony of witnesses skilled in medicine and surgery is necessary to determine whether specified acts constitute malpractice is subject to some qualification. For instance, it is said: 'Probably the most common instance of malpractice which is brought into the courts arises out of surgical cases where the physician or attendant has left a sponge in the wound after the incision has been closed. That this is plainly negligence there is no doubt at all, and it matters not at all that many physicians testify that the best of surgeons sometimes leave a sponge

or some other foreign substance in the bodies of their patients, for this is testimony merely to the effect that almost everyone is at times negligent.' In a recent case having some features in common with the present one the court said: ' . . . jurors of ordinary intelligence, sense, and judgment, although not skilled in medical science, are capable of reaching a conclusion without the aid of expert testimony as to whether it is good surgery to permit a wound to heal superficially with nearly a half a yard of gauze deeply imbedded in the flesh, and likewise are capable of determining whether or not injurious consequences of some character would probably result. The exact nature and extent of the evil consequences resulting therefrom, of course, laymen would not be competent to determine without the aid of medical science.'

"The verdict rendered was an inconsistent one. If no injury was done the plaintiff there was no justification for awarding even nominal damages against the defendants. They ought not to be penalized for doing the proper thing even though they did it unintentionally. Notwithstanding the testimony of physicians to the contrary the court is of the opinion that if, as the jury must be deemed to have found, the defendants negligently left the sponge in the incision where it remained undiscovered from May 30 to August 7, substantial injury to the patient must have resulted, and therefore a verdict for merely nominal damages should not be allowed to stand.

"The judgment is reversed and a new trial ordered."

Johnston, C. J., Burch, J., Marshall, J., Dawson, J., and Hopkins, J., concurring.

MASON J. (dissenting): "I do not think testimony of physicians that no substantial injury resulted from the presence of a surgical sponge in an unclosed incision is so contrary to the laws of nature that an appellate court may set aside a judgment based upon it on the ground that it cannot possibly be true."

HARVEY, J. (dissenting): "The verdict must be construed as a finding that defendants were negligent in leaving the gauze sponge in the incision but that this did not result in injury to the plaintiff. In malpractice cases, as in negligence cases generally, the rule is that damages cannot be recovered for negligence which does not result in injury. On the point whether injury resulted from the negligence in this case there was much conflicting evidence.

The jury considered this conflicting evidence and found by their verdict that there was no injury resulting to plaintiff from leaving the gauze sponge in the incision for about seventy days. This finding and verdict was approved by the trial court whose duty it was to weigh the evidence and to satisfy his own mind that the verdict was just. In the absence of any suggestion to the contrary it must be assumed that the court performed that duty. This court cannot weigh conflicting evidence. Unless there was no evidence to sustain the verdict it must stand. That cannot be said in this case. There was abundant evidence that the leaving of the gauze sponge in the wound did not result in injury to plaintiff."

Another opinion that was handed down should be of interest to every physician in the state. From this opinion one might infer that the county may be held responsible for the care of emergency cases among its poor inhabitants, even though an order for such care has not been issued by the proper authorities. The following extracts are taken from this opinion:

DAWSON, J.: "The plaintiff, who was a physician and surgeon, at the request of the trustee of Mill Creek township, Pottawatomie county, rendered professional services to Mervia Hahn, a poor, moneyless and friendless person who was lying ill at Onaga with an acute attack of appendicitis. The defendant board refused to pay plaintiff's charges therefor. Hence this lawsuit. The issues were joined, and after plaintiff's counsel had stated the case and some admissions had been made by counsel, defendant's motion for judgment was sustained.

"From the trend of the argument in the briefs, it seems to be agreed by counsel for plaintiff and defendants that the judgment of the trial court was chiefly based upon the proposition that the township trustee was without authority to bind the county for the relief of a poor person found within the city of Onaga.

"It is not of vital importance whether Mervia Hahn was lawfully settled in Mill Creek township or was a stranger. The humanity of our statutes has provided for both contingencies.

We have then but the narrow question whether the township trustee had any authority to concern himself with the plight of Mervia Hahn, since she was lying dangerously ill without money or friends *inside*

the corporate limits of Onaga, a city of the third class lying within Mill Creek Township. Cities of the third class are mainly integral parts of the civil townships in which they are located. The township trustee's duties, for the most part, do not halt at the city limits. He is the tax assessor and the head functionary for the administration of the general election laws in his township, and in the exercise of these functions his duties cover his whole township, inside as well as outside of incorporated cities of the third class. As important as these are his duties as overseer of the poor. Why then should his official humanitarian activities be restricted to such parts of his township as lie outside the limits of third class cities lying within his township? The statute admits of no such interpretation. The court holds that his duties and authority as overseer are co-extensive with his township. That the governing body of the city is also an overseer takes nothing from this view; rather does it show an anxiety on the part of the legislature that where there are enough people to form a city within the township additional overseers of the poor may be necessary, and so the statute creates them.

"But there is another phase of this matter which should not be overlooked. Mervia Hahn, a poor, friendless, moneyless person was dangerously ill in the midst of a civilized community. What was to be done? Should the poor creature die for lack of professional succor because it was the *wrong* factotum, the township trustee rather than the mayor of Onaga, who engaged the plaintiff's professional services to relieve her distress. This court has held that the important matter in such cases is to save life and succor the distressed. The question of whose official business it was to set the machinery for saving human life and for assuaging human suffering was of relatively less importance. What difference can it possibly make to the taxpayers of Pottawatomie county whether the township trustee or the mayor of Onaga gave the order that this woman be cared for? If the emergency were especially critical, it was not imperatively essential that succor for the afflicted person should be delayed until an official order for her relief could be procured from either trustee or mayor. The county board 'with an enlightened liberality as well as a caution prudence,' lawfully could and morally should pay the reasonable charges therefor without their previous sanction by the overseer of the poor."

CHIPS

Somnifere, the new anesthetic, is claimed to be far superior to any other one yet used. From ten to fifteen c.c. is injected into the veins to anaesthetize. A peculiarity in the anaesthetizing with somnifere is that before injecting it injections are made of morphine or of scopolamine into the veins. Enough of these alkaloids, of themselves, would fold the patient in the arms of morpheus without somnifering him.

In the examination of 1000 adult throats, Dr. Samuel K. Skillern, of Philadelphia, found that eighty per cent of men had infected tonsils. It is just as reasonable to believe that he would have found as great a per cent of men with colon bacillus in the colon.

Bog is the new preventive of tuberculosis. But its efficacy is confined to persons entirely free from tubercular trouble. Since everybody has tubercles in his system, it will be necessary to wait until a subject can be found who is free of tubercles before Bog can be beneficially used.

A report made at the second opium conference at the League of Nations shows the amount of opium and its equivalents used in the principal nations of the world. According to this report the total annual opium requirement in the United States is second only to that of India, but the annual per capita requirement in the United States is 1.56 grams (24 grains) and in India 1.14 grams. The purpose of this conference is to control, by international agreement, the production, manufacture and distribution of opium and its derivatives.

On the theory that defective eyesight may be a contributing factor in the rapid increase of automobile accidents, the Eyesight Concervation Council recommends that a test be made of applicants for drivers' licenses and that if vision cannot be brought up to one-half the normal in any applicant a license should be refused.

Foss and Jackson in the American Journal of Medical Science state that from their observation there is, apparently, no definite relation between goiter and insanity. About 800 goiter cases treated in a general hospital, and 50 goiter patients among 1700 inmates of a large hospital for the insane, were studied. Insanity was extremely rare in these goiter patients treated at the general hospital and goiter very rare

among the patients at the hospital for the insane.

The achlorhydria in pernicious anemia is not due to atrophy of the gastric mucous membrane but represents a primary constitutional deficiency, present from infancy, according to Waltman, *American Journal of Psychiatry*, January 24. The mental disturbance consists of irritability and suspiciousness which forms the ground work for delusion of persecution. Foci lesions in the brain have been demonstrated in cases with and without mental disturbances. The frequency of multiple peripheral nerve degenerations is also mentioned.

In spite of the criticism that it has no scientific basis, nonspecific protein therapy seems to gain in the number of its advocates and the range of its usefulness. De Courcy has recently reported the use of nonspecific protein therapy in hyperthyroidism and thyrotoxicosis, *American Journal of Surgery*. He believes that this treatment will displace ligation in a large number of cases and give us a safer treatment than ligation in the very severe type of cases in which we hesitate to perform ligation. At first he used injections of typhoid vaccine but later used toxin-free milk.

The Wassermann reaction is often valuable in confirming a diagnosis of tabes, says C. P. Symonds, (*Lancet*, Sept. 6). As a guide to progress and further treatment it is unreliable since it is by no means rare to discover actively progressing tabes with a positive history of syphilitic infection, despite a negative reaction in both blood and fluid. As to the intrathecal injection of salvarsanized serum, the theoretical basis for its use is insecure, is a complicated, costly, and painful procedure, and there is no certain evidence to show that the clinical results achieved by it are better than those which may be expected from intravenous injections alone.

Bannerman made a study of blood platelets in pulmonary tuberculosis and made a report in the *Lancet* (Sept. 20). He found that platelets are generally present in excessive numbers in active pulmonary tuberculosis and the more serious the condition the greater the degree of thrombocytosis. A change in the number toward normal is associated with clinical improvement while a further increase is associated with progression. The maintenance of a normal

platelet count points to stability. He believes that an inverse relation persists between thrombocytosis and the patients resistance and that a platelet count may be used to determine to a fair degree the extent of such resistance.

John Parkinson, in an article dealing with the diagnosis of a healthy heart in the *London Lancet* (Sept. 6), makes some very timely statements. He objects to terms such as "weak heart" and "strained heart" as meaningless and deceptive. The term "heart disease" should be used to imply something which will either shorten the life of the patient or restrict his activities. Rheumatism and syphilis are the most frequent causes of chronic heart disease in the young and middle aged, while in later life diseases of the arteries with hypertension as in cardio vascular and renal disease. After excluding angina pectoris, early valvular disease, high blood pressure and functional nervous disease it may be argued there has been no adequate cause to affect the heart, and if it is not enlarged, there is no unusual breathlessness on exertion and no pain, and it works well, one may diagnose a healthy heart.

It is well to keep in mind that edema may occur in conditions of malnutrition, particularly in children, but also in adults. Possibly this so-called nutritional edema is due to some interference with the excretion of salts. It seems more likely to occur in children fed mostly on carbohydrates. It has been suggested that this may explain the apparent gain in weight of infants fed upon proprietary cereals that are composed largely of starch and sugar. These infants are apparently well nourished but are pale and flabby and have a low resistance to infections. The rapid loss of weight which accompanies acute illness in these infants is probably simply a discharge of water from the tissues.

Dr. J. F. Baldwin, Columbus, Ohio, in a paper on anesthesia deaths in the *American Journal of Surgery*, August, says in regard to nitrous oxide-oxygen: "Since the occurrence in Columbus alone of over 20 deaths within a few years, I have absolutely refused to allow my patients requiring complete relaxation to be anesthetized by this agent; and since a recent fatality in Detroit, in which a hearty young man died at the third inspiration of nitrous oxide-oxygen, administered by an acknowledged expert, I even object to its use for minor

operations. I will not permit a patient to take an anesthetic which I would not myself be willing to take if our circumstances were reversed."

In discussing the radio-therapeutics of cancer, in the *Lancet*, Sept. 27, Dr. Hernaman-Johnson reaches some conclusions that seem wisely conservative. We should regard malignant tumors from a dynamic and not from a static view point. The microscope does not enable us to say any two tumors are really alike.

The still healthy parts in the neighborhood of a tumor play a vital part in the success of any therapeutic measure. When "intensive dosage" is used, the amount of radiation which is concentrated upon a tumor should not exceed the maximum consistent with the production of a healthy reaction in the surrounding tissues. The so-called danger of a "stimulating dose" is a bogey. If the danger were real it would forbid the treatment by x-rays of any but the earliest growths. The intensive method should rarely be used to render a case operable, and never as a prophylactic after operation. For this purpose, and as a palliative in hopeless cases, the small divided dose is alone suitable.

Great men and great ladies have at times set the styles in hats and other wearing apparel, but fashions in the treatment of disease have rarely had so noted a sponsor as is suggested by the following extract from an advertisement:

"When President Coolidge recently cured a severe cold, by inhaling a measured dosage of chlorine gas released in the air of a closed room, public attention was forcibly called to a new and wonderfully successful treatment for colds, influenza, whooping cough, bronchitis, laryngitis and practically all other respiratory diseases. It is, indeed, safe to assume that this new treatment will revolutionize the methods heretofore employed in overcoming these diseases, just as rapidly as the medical profession can provide itself with dependable means of administering the gas. It is easy to picture the vast army of sufferers from respiratory diseases following the example of the President.

It is hardly necessary to call the attention of the trade to the wonderful possibilities of profiting by this new development of medical science."

Few people in this country other than physicians ever see a case of leprosy

although it is estimated that between five hundred and one thousand lepers are still at large in the United States. Except the disease be in its last stages the average person would never recognize it. Lepers have been known to live in communities for years before being recognized as such. Often these persons are discovered to be lepers when applying for treatment of some other condition.

Recently three lepers have been discharged from the National Leprosarium at Carville, Louisiana as having now no manifestations of the disease. To all intents and purposes, they have been cured although the doctors merely certify that the disease has been arrested and that these persons are no longer a menace to the public health.

The treatment at Carville, while by no means wholly confined to the use of special preparations of chaulmoogra oil, depends very materially on these preparations for its efficacy, or in other words, their use is regarded as an important adjunct of the treatment.

The accommodations for lepers at Carville have never been sufficient to take care of all the lepers who apply. At present there are 211 beds, all of which are filled, but there will soon be facilities to care for a total of 415 lepers and it is believed that the new buildings will be rapidly filled as there is a large waiting list.

The timely provision for the isolation and treatment of these unfortunate victims of this terrible disease will, no doubt, diminish the spread of leprosy in the United States, a matter that is already giving great concern to both National and State health officers.—(Health News.)

Hernia in the linea alba has often been confused with gastric and duodenal ulcer, and sometimes the two conditions exist at the same time. The presence of a tumor or slitlike opening in the linea alba, with or without the protrusion of a small mass on coughing, will help to establish a diagnosis of hernia.

In ulcer the symptoms come on at a certain interval after eating, while in hernia the paroxysmal attacks have no relation to meals, but usually follow physical exertion, and the patient finds the most relief is secured by assuming a doubled up position, which relaxes the linea alba—when the omentum slips back into the abdominal cavity the pain disappears. Epigastric hernia must also be distinguished from

cholelithiasis, cholecystitis, gastralgia, gastritis, carcinoma, sarcoma, appendicitis, nephrolithiasis, abscess or tumor of the abdominal wall, and the gastric crises of tabes.—(Leigh F. Watson, N. Y. Med. Jour. and Rec., Apr. 16, 1924.)

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Some Things We Have Learned

BY THE PRODIGAL

We have learned that:

Evolution is an orderly change.

The ape was the first draft of man.

A doctor needs no more knowledge than he can use.

Criminologists are investigators of crime.

Disease does not originate de novo but genetically.

Relativity is pushing gravitation for the Blue Ribbon.

(a) Gravity being a property of space and not a force.

Insanity is increasing about 3 to 5 per cent annually.

(a) Part of this increase may be due to crucial tests and more accurate statistics being made.

Cod-liver oil has neither calcium nor phosphorus in its make up, and yet?

Radiation and Cod-liver oil are two reliable therapeutic agents in the cure of rickets.

The human body is too complex in its construction or make up.

Defective effectivity is a cause of failure.

It is what a doctor knows and can work that counts, and not what he ought to know from his opportunity to know.

Lack of growth and development in some of us is caused by our being tight-wads.

Items from Kansas in the Journal of the A. M. A. are too infrequent.

(a) Not quite enough pep shown in the body politic of the profession.

The editorials in the October 11, '24, number of the Journal of the A. M. A. are worth re-reading.

The gall bladder will soon be placed on the retired list with the appendix, spleen, tonsils, and much of the internal makeup of Homo Sapiens.

Paternalism in medical practice is increasing.

(a) Institutionalism in state, church and medicine is doing it.

(b) When the public does everything for a man he does nothing for himself.

(c) And he becomes an undesirable citizen.

Simplicity of display of surgical instru-

ments, by the surgeon, is ocular proof of his ability.

(a) An excessive number of surgical instruments on display, may be likened to the older physician's shot-gun prescription in drugs.

(b) It may catch the eye of the onlooker but it is, to the patient, the first syllable of a telephone call.

Crying in utero, by the foetus, is being revived.

(b) It may be caused by the political situation?

A man when puzzled scratches his head. Why?

The old family doctor sees his finish.

(a) Specialists are doing him up.

The wrong numbers of a telephone call are never busy. Why?

Experience is the best fertilizer to grow judgment.

Preventive medicine is standardized.

The next goal for medicine is the establishment, in the human body, of inductive resistance to disease.

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SOCIETIES

CENTRAL KANSAS AND LINCOLN COUNTY SOCIETIES

The quarterly meeting of the Central Kansas Medical Society was held as a joint meeting with the Lincoln County Medical Society at the Ellsworth County Club, Ellsworth, October 7th.

The Central Kansas Society held its business meeting first. After the meeting was called to order by the president, Dr. Stoner, the minutes of the last meeting were read and approved.

A letter was read asking permission to use the name of Central Kansas Medical Society by an organization to be called the Auxiliary to the Central Kansas Medical Society whose members are to consist of either the mothers or wives of the doctors belonging to the society. On motion, which carried, they were given permission to use the name.

Letters from the University of Kansas School of Medicine, requesting the members to talk to their members of the legislature in regard to appropriations for the School of Medicine and for any health laws that might come up, were read. On motion the secretary was instructed to write to the state secretary and get a report from him as to what program was to be carried out, what appropriation was necessary, and what health laws were to come up, so that

the members would be able to talk to their legislative candidates intelligently.

The following resolution was handed to the secretary to be read before the society for consideration:

"Any member, practicing the methods of any cult or who counsels with or who is professionally associated with any person, practicing the methods of any cult not recognized by or taught in standardized medical colleges, who refuses to discard such methods of practice, or such associations, shall be expelled from the membership of the society."

On motion it was decided to place the resolution in the minutes to be voted on at the next meeting.

Dr. Wilfred Page, formerly of McCracken, now of Ellis, was admitted to the society by transfer from the Rush-Ness County Medical Society.

At this time Dr. Stoner offered the meeting to Dr. H. L. Hinchley, president, and Dr. M. Newlon, secretary, of Lincoln County Medical Society, but as they had no special business to come up they suggested that we go on with the scientific program.

The scientific program was proceeded with as follows:

"The Treatment of Malignancies," Dr. O. W. Swope, Wichita, Kan.

"Lantern Slide Demonstration of Pylelograms," Dr. Ralph Hissem, Wichita, Kan.

"Primitive and Modern Obstetrics," Dr. Geo. C. Mosher, Kansas City, Mo.

As Dr. Mosher was unable to be present, Dr. Blake of Ellis read his paper which was appreciated and enjoyed by all present.

At seven o'clock a banquet was served the two societies by the Ellsworth county physicians in the banquet room of the new Ellsworth County Golf Club. The Auxiliary to the Central Kansas Medical Society was also in attendance at the banquet.

Dr. Stoner gave an invitation to the society to meet at Ellis the first part of December which was accepted.

The meeting adjourned after a vote of thanks had been given the local doctors for the excellent meeting and time had by all.

Leo V. Turgeon, M.D., Secretary.

KANSAS HOSPITAL ASSOCIATION

The tenth annual meeting of the Kansas Hospital Association was held at the Broadview Hotel, Emporia, Kan., October 28, 1924. It was an interesting and enthusiastic meeting with 52 delegates present.

A most pleasing address of welcome was

given by Thos. Butcher, president of the Kansas State Teachers College of Emporia, Kan., and response was made on behalf of the Association by Dr. J. T. Axtell, of Newton.

Our president, Mr. Thos. Dawkins, of Wichita, had been on an eastern trip attending the National Hospital Association meeting at Buffalo, N. Y., and the Congress of Surgeons meeting in New York City, and expected to give a report of these meetings to our Association. However, a telegram was received from him saying he had missed connections in Chicago and thus was forced to miss the meeting at Emporia, much to his regret, but that he had prepared his address and would have it printed and circulated to the membership. The members were very sorry indeed not to have Mr. Dawkins with us.

A very fine paper on "Relation of the County Health Unit and County Hospital" was given by Dr. J. S. Fulton, of Emporia, Kan., which brought forth considerable discussion.

The meeting then adjourned for luncheon which the members enjoyed together at the Broadview Hotel, and on account of being somewhat crowded for time, the Round Table discussion was held during this time.

The afternoon session opened at 2:20 P. M. A "Review of the Hospital Tax Situation," was given by Dr. A. R. Hatcher, of Wellington, Kan. Dr. Hatcher explained the hospital tax situation as it stands in Kansas at the present time, and told of the work done by the Executive Committee in assisting St. Rose's Hospital, of Great Bend, in their suit against Barton county. In the district court the judge recently made a decision in favor of the county, but the case will be appealed to the supreme court, and the Kansas Hospital Association will continue to assist the hospital in every way possible.

Miss Cora A. Miller, R. N. Superintendent of Newman Memorial Hospital of Emporia, gave a splendid paper on "Hospital and Training School Records," which contained some very practical suggestions.

The minutes of the previous meeting and annual financial report were then read by the secretary-treasurer, Dr. J. T. Axtell, and approved as read.

Election of officers for the ensuing year resulted as follows: Dr. L. D. Johnson of Chanute, president; Dr. J. S. Fulton of Emporia, vice president; Dr. J. T. Axtell of Newton, secretary-treasurer; Dr. R. C.

Young of Arkansas City, 3-year term on Executive Committee. Motion was made and carried that the office of secretary-treasurer be made a permanent office, and the by-laws amended accordingly, and Dr. Axtell was declared permanent secretary-treasurer.

Invitations for the 1925 meeting were extended by Topeka, Herington and Junction City, and on ballot it was found that the vote stood, Topeka 27, Herington 3, Junction City 1, and Topeka was declared the meeting place for October, 1925, the exact date to be set later.

The members then enjoyed on automobile ride about the city, and a visit to the Newman Memorial Hospital, where tea was served and a social time held. Much credit for the success of the meeting and the splendid entertainment offered is due to Miss Cora Miller, superintendent of the Newman Memorial Hospital.

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WILSON COUNTY SOCIETY

The following is the official minutes of the Wilson County Medical Society meeting held at Neodesha, Kan., October 27, 1924:

"Minutes of previous meeting read and approved. Roll call, present: Flack, Wiley, Young, Butin, Duncan, Moorehead, Smith, Sharpe, Addington, Farrar.

Dr. Moorehead asks for report of committee re absentees. President asks Dr. Wiley, chairman, to report. Dr. Wiley asks for more time, which is granted.

Dr. Young makes motion committee be appointed to prepare statement re Ben S. Paulen, to be sent to secretaries and inquiries. Motion seconded by Moorehead, carried.

Contents of above letter discussed and agreed.

Flack appoints Young, Butin and Duncan as committee.

Sharp, Smith and Addington discuss the Kansas City clinics.

Adjourned to meet at Fredonia in November.

E. C. DUNCAN, Secretary."

No resolutions were passed and no intention to campaign against Mr. Paulen was thought of. The contents of the circular letter was thoroughly discussed and a statement of facts was to be sent as stated in the minutes. It was first thought to send circular to all Kansas doctors, but

finally agreed to just send to secretaries and inquirers.

(Signed) A. C. FLACK, President.

E. C. DUNCAN, Secretary.

W. H. YOUNG, Chairman.

J. A. BUTIN, Member Committee.

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DECATUR-NORTON COUNTY SOCIETY

The Decatur-Norton County Medical Society met Thursday, October 9th at 2 P. M., in the Commercial Club rooms at Norton, Kan. The following very interesting program was presented.

Paper, "Case Report"—

W. W. Scott, Alma, Kan.

"Suppurative Appendicitis"—

W. C. Lathrop, Norton, Kan.

"Fractures of the Petalla," Case Report—

John Jeurink, Prairie View, Kan.

"Intestinal Disturbances of Children"—

F. R. Funk, Dresden, Kan.

"Locking Backward"—

R. K. Hoover, Colby, Kan.

A short business meeting was held following the program after which dinner was served in the club rooms.

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DEATHS

Dr. Samuel Foster March of Kansas City, Kan., died August 23 at Paola, Kan. Dr. March was 74 years of age at the time of his death. He was graduated from the Eclectic Medical Institute, Cincinnati, in 1884.

Dr. John L. Hays of Howard, Kan., died August 31 at the age of 87. Dr. Hays was graduated from Rush Medical College, Chicago, in 1871.

Dr. Morton P. Williams of Garden City, Kan., died in October at 80 years of age. He was graduated in 1876 from the Kentucky School of Medicine at Louisville.

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Dr. Lawrence Reynolds of Horton, Kans., died at his home October 7, 1924, after six weeks of illness from intestinal obstruction. Dr. Reynolds was born in Marshall county, West Virginia, August 20, 1860. He graduated in medicine from the Medical College of the University of Iowa in 1884. He located at Horton, Kan., in 1888 when he became division surgeon for the Rock Island which position he held until the time of his death. He founded the Horton hospital in 1906 which he managed until his death. He was at one time president of the Kansas Medical Society.

Medical School Notes

The William T. Fitzsimons memorial tablet, placed in the lobby of the new hospital by the alumni of the Medical School, was unveiled during the Clinical Conference Week. The ceremony was attended by about 300 visiting physicians and reserve officers. Several members of Dr. Fitzsimons family were present. The opening address was made by Mr. A. B. Carney, chairman of the State Board of Administration. Surgeon General M. W. Ireland delivered the dedicatory address. He recited Dr. Fitzsimons' service record and read the official report of the air raid in which Dr. Fitzsimons lost his life. The inscription on the tablet is as follows:

"IN MEMORIAM"

"William T. Fitzsimons, A. B., M. D., Captain Medical Corps, U. S. A., an alumnus of this school, killed by an aerial bomb while on duty at Dannes-Camiers, France, Sept. 4, 1917, being the first American officer to give his life in the World War."

One hundred and twenty-nine alumni of the Medical School attended the annual banquet at the University Club during clinical week. Dr. W. C. Alvarez of San Francisco was the visiting guest of honor and gave a very interesting talk on his research work in gastro-intestinal studies. An executive session was held after the banquet and the following officers were elected: Dr. C. C. Dennie, '12, president; Dr. H. P. Kulin, '06, vice president; Dr. Lewis G. Allen, '17, secretary and treasurer.

The following appointments to the faculty have just been made: Dr. L. B. Spake, clinical assistant in Otorhinolaryngology; Dr. John Aull, clinical assistant in Pediatrics; Dr. C. J. Eldridge, clinical assistant in Pediatrics; Dr. H. M. Gilkey, clinical assistant in Pediatrics.

Dr. E. P. Joslin of Boston, Dr. Perry Pepper of Philadelphia and Drs. Frank Hinman and W. C. Alvarez of San Francisco, spent considerable time at the Medical School during clinical week. All of the patients shown by Dr. Joslin at his clinic on diabetes in Convention Hall were from the medical service of Bell Hospital.

Dr. R. H. Major attended the recent meeting of the Tri-State Medical Association.

Mr. and Mrs. John W. Dancey have an-

nounced the marriage of their daughter, Marie, to Dr. Ralph Town, '23. Dr. Town is resident house officer at the Trinity Lutheran Hospital, Kansas City, Mo.

Dr. Forrest Anderson, '21, and Dr. E. R. Coffey, '23, are with the United States Public Health Service and are stationed at Ellis Island. Dr. and Mrs. Coffey recently announced the birth of a son.

Dr. A. L. Skoog attended the meeting of the Central Neuropsychiatric Society in Chicago.

Dr. H. N. Tihen of Wichita, was a recent visitor at the Medical School.

Dr. Leonard W. Ely, professor of Surgery at the Leland Stanford University, spent a day visiting the hospital and Medical School.

Dr. J. B. Cowherd, Dr. Frank C. Neff and Dr. Damon Walthall attended the recent meeting of the Central States Pediatrics Society held in Minneapolis.

R

An Interesting Group

Adrenalin, the original representative of the blood-pressure-raising or pressor principle of the suprarenal glands, introduced in 1901 by Parke, Davis & Co., has now an interesting group of offshoots—preparations which depend in whole or in part for their value as medicinal agents upon the adrenalin they contain.

There are Adrenalin Inhalant, Adrenalin Ointment, Adrenalin Suppositories, and, among the very latest and in some respects most remarkable combinations, an ointment which the manufacturers call Anesthone Cream because it has a local anesthetic effect in hay fever, rhinitis, etc.; there is said to be enough adrenalin in the formula to check excessive secretion and exert a reducing effect on the inflammatory condition to which much of the local irritation is due.

Adrenalin itself has many important applications, among which are to be reckoned the control of asthmatic attacks and the restoration of heart action in cases of shock or even apparent death.

R

Rapid Provisional Microscopic Diagnoses of Malignancy Without a Microtome

In examining tissues stained with Polychrome Methylene Blue in the gross for malignancy, Benjamin Taylor, Nashville,

Tenn. (*Journal A.M.A.*, Oct. 11, 1924), came across a number of cases in which neither the naked eye examination nor the examination with a magnifying glass was sufficient for a diagnosis. It became very desirable to modify the method so as to permit an examination with the low power of the microscope. Experiments soon showed that this could be done. All that is necessary is proper technic, a smooth, clean cut slice of tissue that will lie flat, a good, quick-acting stain, a strong light concentrated to a small beam that illuminates evenly and obliquely the surface examined, and a good low power microscope. In order to secure a smooth slice of tissue that will lie flat, Terry uses a very sharp razor, and makes parallel cuts by drawing the razor through the tissue with a long, sweeping stroke. Both sides of each section can then be stained and examined. If the slices of tissue are large, the stain can be painted on the surface with a broad, soft, camel's hair brush. If the sections are not large, they can be immersed directly in a small dish of stain. The moist, stained specimen, after a quick naked eye and low power examination, is placed at once in a shallow dish on the stage of a microscope so that the upper surface can be illuminated obliquely by a strong electric light concentrated to a beam from 2 to 3 mm. in diameter. This beam should fall on the surface of the tissue at an angle of about 45 degrees. Examination should be made at once, for strong light rapidly decolorizes the stained specimen. The new method has checked satisfactorily with the older methods in more than 80 per cent of cases. The new method of staining in the gross and examining by oblique illumination has seven advantages: 1. It is very rapid. 2. It is seemingly dependable. 3. It is so simple that it probably can be easily and quickly acquired by any experienced pathologist. 4. It is applicable to well fixed tissue, and it may be applicable also to fresh tissue. 5. It is inexpensive. 6. It is apparently especially useful in locating a small area of malignancy in a larger area that is not malignant. 7. It is not restricted to the diagnosis of malignancy, for it shows other pathologic changes almost as well.

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Accidental Malarial Infection in Syphilis of the Brain

A case of syphilis of the brain, with death from an accidental infection with

estivo-autumnal malaria is reported by Laurence E. Hines, Chicago (*Journal A.M.A.*, Oct. 11, 1924), because it is a natural human experiment of interest in connection with the problem of treatment. A man with chronic meningeal syphilis, acquired estivo-autumnal malaria and died ten days after the onset. The lesions produced in the brain by the malaria, marked edema and hyperemia and engorgement of small blood vessels with malarial parasites, the usual findings in the uncomplicated, acute, comatose types of malaria. There was a striking absence of cellular reaction in the brain, even around the parasite filled capillaries. The disseminated syphilitic, focal lesions of the arachnoid showed a slight cellular reaction, but this may be present, ordinarily, in pure syphilitic lesions. The Wassermann reaction of the spinal fluid was strongly positive. The anatomic findings are those which might be produced by syphilis and malaria together, and there is no anatomic evidence that the syphilitic lesions have been changed by the malarial infection.

—R—

Some Original Blood Pressure Observations

Variations in blood pressure have been a subject of interest to Virgil C. Kinney, Wellsville, N. Y. (*Journal A.M.A.*, Nov. 1, 1924). In cases of paralysis following cerebral hemorrhage, it is quite usual to find the blood pressure from 20 to 30 mm. lower on the affected side than on the side unaffected. He believes that the vasodilators of the affected side are paralyzed, thus allowing the whole circulation, especially the larger entering vessels, to become unduly constricted, cutting down the blood supply to the paralyzed member. An aggravation of symptoms may mean either a rise or a lowering of the blood pressure. Authentic reports on the height to which the blood pressure ever goes are woefully lacking. One reason is that many reports of exceptional high blood pressure readings are taken with a dial apparatus. A few accurate investigators have taken readings at 300 mm. or higher. The question as to how low it is advisable to reduce the blood pressure is almost unanswerable. Under a proper diet, graduated exercise, baths, massage and medication, if the blood pressure is not dropped too rapidly, it is not unusual for patients with a simple constriction of the capillaries in a few weeks to have their blood pressure reduced to 115 or 120 mm. and, then if their life be regulated, to have the blood pressure remain at the low point

for years. When a chronic cardiovascular-renal disease is present, the heart muscle, the arterial walls and the kidneys must all be taken into account. Often a greatly distended heart will contract as fast as the blood pressure is reduced, its tone increase, and with this increased tonicity its contractive power is increased and so, for four or five weeks, the blood pressure is not seemingly reduced. Then, as soon as the heart has reached to somewhat like its normal size, its power becomes more constant, and then the blood pressure readings will begin to drop. To what extent is it advisable to continue our reduction? The heart is our index. In advanced cases with much fibrosis and a weak heart muscle, some cases, even under the best of treatment, will begin to show signs of decompensation if the systolic blood pressure is reduced to below 180 or even 190 mm. Blood pressure readings may be inaccurate because of an irregular heart action. It is always advisable to take several readings under different conditions and in different positions. One of the most unsatisfactory conditions encountered in cardiovascular-renal disease is one in which the blood pressure does not run a constant course, but jumps about the scale in an erratic manner. This condition, in Kinney's observation, has in almost every case been encountered not in those cases in which the arterial system is greatly fibrosed, but rather in those cases in which the blood pressure has risen rather rapidly and before a general arterial fibrosis has taken place. In all cases of high blood pressure one should determine whether the walls of the aorta are yet sustaining the shock, which they are called on to take at every contraction of the left ventricle, without weakening and dilation. Certain barometric and hygrometric changes produce great variations in blood pressure, as do changes of climate and altitude. Those patients who do better in warmer climates should be encouraged to go, while those who react badly to low altitudes and warmer climates should not be sent away from their home physicians without this condition being well understood, and the patients being under the supervision of a physician who will receive the data and report to and co-operate with the home physician.

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Foreign Bodies in the Bladder

Sterling P. Bond, Little Rock, Ark.
(*Journal A.M.A.*, Oct. 11, 1924), removed

the following articles from the bladder of a man, aged 58: from eighty to ninety nails varying from 6 to 16 penny, weighing 350 gm.; 20 gm. of cobblers' nails and carpet tacks; one roofing nail; several pieces of glass, the largest of which was one-half inch in breadth and three-fourths inch in length; bits of stone; a piece of enamel from a tooth; one carpal bone of a small animal, and two 3-inch screws. Two of the 12 penny nails had stone formation on the ends. The stones were about one-half inch in diameter. There were also feces, pus and partially digested fibers. From thirty to forty tacks were removed from the postero-inferior portion of the bladder just above the trigon. The patient died. In the ileum there were eight tacks which reached there through a fistula from the ileum to the bladder.

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The Toxemias of Pregnancy From an Ophthalmologic Standpoint

Robert Cartright Cheney, Boston (*Journal A.M.A.*, Nov. 1, 1924), discusses the ophthalmic aspects of the toxemias of pregnancy. Fundus changes are most common in the latter three months of pregnancy, although cases have been reported as occurring as early as the third or fourth month. If a toxemic patient shows a retinitis, the chances are four to one that she has nephritis, and should be carefully followed up for over a year, not being placed in the acute toxemic class and allowed to become pregnant again, unless urine, blood pressure, etc., were absolutely normal during this period. The immediate prognosis for life of patients showing retinitis is good in many cases in that, if properly handled, the nephritic patient may live for years; but in the long run the prognosis is poor. If the retinitis persists for a considerable length of time, postpartum, the prognosis is naturally much worse. If the retinitis is discovered at any time previous to the last two weeks or so of the pregnancy it should be terminated. As a rule, the retinitis of the acute toxemia of pregnancy is an acute toxic rather than a vascular affair. Fundus changes may vary from a few retinal hemorrhages to the classical picture of albuminuric retinitis. Separation of the retina is not uncommon, and may occur with or without retinitis. The routine examination of the fundi is of distinct value to the obstetrician. It has been asserted that, if properly handled, cases of toxemia would not be allowed to progress to the point at

which fundus changes appeared, and fundus changes are, without doubt, found only in the severer cases. At the Boston Lying-in Hospital most of the extensive changes Cheney found were in very sick patients, more or less dumped on the hospital at the last moment, and who, if they had been in the clinic, would never have been allowed to get into such a condition. However, granting all that, the fundus changes do come on quite early in some cases, give a distinct lead to the etiology, prognosis, etc., and, in some instances in which there is doubt about continuing the pregnancy, may be the determining factor in deciding to terminate it. Furthermore, considered merely in the light of research, it is quite possible that a routine eye examination in large series of carefully grouped and studied cases of toxemia may produce interesting and valuable information.

—R—

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for October 1, 1924.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of	Post Office Address
Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society.....	Topeka, Kansas
Editor—W. E. McVey.....	Topeka, Kansas
Managing Editor—None.	
Business Manager—None.	

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society. Alfred O'Donnell, Ellsworth, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. Geo. M. Gray, Kansas City, Kansas, Treasurer.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases

where the stockholders or security holder appears upon the books of the company as trustee or in any other fiduciary relations, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVEY, Editor.

Sworn to and subscribed before me this 24th day of September, 1924.

EVANGELINE INGERSOLL,

(Seal)

Notary Public.

(My commission expires April 15, 1925.)

—R—

The bear was scenting the tracks of the Chinaman in the show. John looked back and said: "Hugh! You likee my tlacks, I makee some more."

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No. 12

An Anomaly of Placental Separation

WILLIAM H. VOGT, M. D., St. Louis, Mo.

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

With the large number of women entering hospitals for confinement an increasing knowledge of obstetrics is bound to occur, and the observation and proper and careful recording of abnormal conditions will naturally follow. Such has truly been the case when one notices the increasing number of reported cases of abnormal obstetric conditions, which do not, I am satisfied, occur with more frequency than in former years, but are only apparent increases, due to the facilities for more careful observation.

The purpose of this paper is to bring to your attention a few obstetric complications, which though of not particularly common occurrence, still arise with sufficient frequency to warrant a thorough acquaintance with the subject in order to properly interpret the symptoms and signs and to institute prompt and careful treatment.

Under the above caption I wish to consider the premature separation of the normally implanted placenta, *ablatio placentae* (Holmes) or *abruptio placentae*. In 1918 I read a paper on this subject and reported eight cases of complete separation observed in private practice, since then, many more have come under my observation, and the literature has constantly increased on this subject.

The frequency of this condition has been greatly underestimated because in certain large foreign clinics the condition had never been observed, while again in smaller clinics and in private practice, such cases were fairly frequently encountered. Holmes claims the occurrence of *ablatio placentae* as a pathological entity in one out of 200 cases, and clinically, in one out of every 500 cases. This estimate, I believe, is too conservative.

The normal separation of the placenta takes place, as we all know, after the expulsion of the fetus. The first uterine contractions following the birth of the child cause marked diminution in the surface area of the placenta and its uterine attachment so that separation of the placenta becomes inevitable. The first slight break between placenta and

uterus permits a small amount of blood to gather between these two organs and the following contractions force this blood between the layers of the serotina, the blood increases in amount and accumulates back of the placental cake, the typical retro-placental hematoma is formed and the placenta is normally and smoothly separated from its attachment to the uterus. The uterine contractions then force the placenta through the internal os and in the upper vagina. Two modes of delivery are generally observed, either the so-called Schultze method or the Duncan method. Even during the second stage of labor, the uterine contractions bring about a slight decrease in the area of placental attachment and in its attempt at accommodation the placenta becomes considerably thicker, at the same time it is pressed firmly against the uterine wall by the amniotic fluid, through which the intra-uterine pressure is transmitted. If this were not the case, premature separation would probably be the rule. This normal separation during the third stage does not differ much from the premature separation except as to time of occurrence. In the normal, the separation takes place after the birth of the child, in the premature separation, the process takes place, either partly or wholly during the last three months of pregnancy or before the termination of the second stage of labor.

ETIOLOGY

From the knowledge of the normal it is apparent that separation of the placenta will take place only when through active contractions of the uterus, as during the third stage of labor, a definite displacement between placenta and uterus occurs, or when, as in *placenta previa* or deep seated placenta as a result of a great distention of the lower uterine segment, such displacement naturally must ensue. This prerequisite is normally not present or at least rarely so, for the placenta has, in the great majority of instances, the ability to accommodate itself during pregnancy and before the termination of the second stage, to the various changes which take place in the uterus and at its seat of attachment. It is apparent, therefore, that certain conditions must be present which, nevertheless, will per-

mit a premature separation of the placenta to take place, such conditions may have a mechanical origin or may arise through diseased conditions, in which the connection between placenta and uterus becomes particularly easily separable or in which the vessel walls of the placenta or the decidua basalis become particularly friable. Separation through mechanical conditions may be purely traumatic, such as accidents, falls, violent exercise, blows on the abdomen and sexual intercourse. Traction on a short umbilical cord has also been mentioned as a causative factor. I am not convinced that ordinary injuries are responsible for the separation, for we see too often in daily life such injuries without any ill effects following.

It is always a question in these cases where injury is given as a possible cause, whether the traumatism simply acted as an exciting cause to an already diseased condition of the placental vessel or decidua. Polak, however, recently stated that he had noticed an increase of such accidents during the Coney Island season, where marked congestion of the street cars and places of amusement are common and where injuries to the pregnant woman are more likely.

Another mechanical cause may be found in such instances in which the uterus was originally greatly overfilled and distended and during labor became partly emptied so that the placenta could no longer follow its diminishing surface area or in which case at least a separation between uterus and placenta could readily take place. This may occur in extreme cases of hydramnion or after the birth of the first child in cases of twins, when the uterus becomes firmly contracted and a fairly long time intervenes between the birth of the first and second child.

Those hemorrhages which occur during pregnancy or in the very early beginning of labor, have as a rule, an entirely different etiological basis, for in such cases we have usually to deal with disease changes in the vessel walls or in diseased conditions of the decidua itself. It was Winter, who first called attention to the frequency of placental separation in the presence of chronic nephritis and since then this observation has been greatly corroborated. The accident likewise occurred with great frequency in the case of so-called kidney of pregnancy. The reason for the separation is here to be found in certain vessel changes, such as are likewise to be found in other regions of the body in cases of chronic nephritis.

Endometritis and necrosis of the decidual cells has been observed and in a case of Mas-

lowsky and one of Haake, the gonococcus could be demonstrated in the decidua.

PATHOLOGY

Williams in 1915, reported two cases of *ablatio placentae* which he had treated by cesarean section, and since in both cases the uterus failed to contract properly after it was emptied, he decided to remove the organ supra-vaginally. The uterus presented a peculiar purplish appearance. Careful histological study showed hemorrhagic infarcts of the myometrium, extensive thrombosis and peculiar arterial changes, and from these examinations he concluded that arterial changes are probably very common and are of toxic origin and are due to the action of some substance circulating in the blood, possibly producing changes in the smallest arterioles that permit the blood to escape into the tissues. Prior to Williams' report, however, Couvelaire in 1911 found practically the same conditions present in a uterus which he had obtained from cesarean section and he designated this as *utero-placental apoplexy*.

The vessel changes in the small arterioles which Williams observed and which permit hemorrhage into the uterine tissue are probably the same vessel changes which take place in the placenta and at the decidua basalis and produce hemorrhage at the placental site.

Morse in 1917 thought that the hemorrhage in the myometrium might be caused by the extreme overdilation of the uterus from profuse hemorrhage. He, therefore, injected the uterus of a pregnant dog with sterile salt solution so that the organ was so tensely filled that it was on the point of bursting. The opening of the uterus was then securely closed and the abdominal walls approximated in the usual manner. After forty-eight hours the abdomen was again opened and an abortion was found to have taken place, but no blood was found to have extravasated into the myometrium. He, therefore, concluded that extreme overdilation would not cause hemorrhage into the myometrium and dissociation of muscle fibers. He then directed his attention to the effect of blocking off the venous flow of the pregnant uterus, but not until he tied off all three groups of veins, did he obtain any result and then he found that his experiment had produced a separation of the placenta, and in the uterine walls marked extravasations of blood with dissociation of muscle fibers was observed. From these experiments he believed it possible in cases in which the uterus lacks sufficient support as a result of weak abdominal walls, that this organ might become very freely movable in the abdominal cavity and in consequence be subjected to an unusual de-

gree of torsion thereby stretching or kinking the veins in the broad ligaments and producing a condition such as he was able to produce experimentally. This theory deserves consideration and would warrant his suggestion to give the proper support to the pregnant uterus to avoid such accidents.

SYMPTOMS

The first and most important symptom of premature separation is bleeding, particularly at the site of separation. The placenta is raised from its uterine attachment and the degree of bleeding will depend on the intensity of counter pressure which the uterine contents is able to exert upon the walls of the uterus.

The bleeding may remain localized beneath the placenta or increased bleeding may gradually elevate the placenta and membranes from the uterus and appear externally.

The concealed or revealed types of hemorrhage are therefore possible. In the early stages of concealed hemorrhage a decidual hematoma is formed. In such cases only a small portion of the placenta is, as a rule, placed out of function and it is possible that no clinical symptoms are observed. A very careful inspection of every placenta will frequently show such blood clots and lead to the post partum diagnosis of partial premature separation of the placenta when clinical symptoms may have been entirely absent. A greater separation with its associated bleeding generally takes place, particularly when the natural mechanical forces of labor are in progress.

It may be generally stated that complete concealment of hemorrhage is usually not observed. There may be a combination of both. It is perfectly plain that in the complete and gradual separation of the placenta and the membranes, a great amount of bleeding must have taken place before external bleeding became manifest, therefore, the amount of external bleeding can be no criterion of the amount of blood lost. Complete concealment of hemorrhage will take place (1) when the placenta is centrally detached and the blood accumulates back of it, but the margins of the placenta still remain adherent; (2) when the placenta is completely detached and the blood is retained by adhesions of the membranes to the uterine wall; (3) when the membranes rupture near the placenta and the blood breaks through and mixes with the amniotic fluid; (4) when the presenting part so accurately plugs the lower uterine segment, that the blood cannot escape externally.

The early complaint is usually sudden severe pain in the lower abdomen, not the pains of labor, but continuous suffering. All the

signs of severe shock, as we are accustomed to seeing after severe bleeding, present themselves early. With this, the uterus promptly becomes extremely distended and tense, marked tenderness over the entire abdomen and uterus is present and on account of this tenderness and distension, the position of the fetus cannot be outlined, nor can the fetal heart tones be heard. Labor pains are usually not present in the beginning. These symptoms occur most frequently without warning, perhaps while the patient has been resting in bed at night and are frequently associated with the symptoms of a nephritis. Even the formation of a central hematoma may produce severe general symptoms and marked anemia. Large blood clots ranging from 500 to 1,500 gms. (Freudenberg) have been observed after the birth of the placenta. Such bleeding may cease and the severe symptoms disappear or improve, on the other hand, the bleeding may continue until death occurs unless proper treatment is promptly instituted. Where labor is in progress, large amounts of liquid and coagulated blood follow the birth of the dead fetus. In many cases the contractions of the uterus fail to take place properly after the completion of the birth so that the already depleted woman is placed in greater danger or even succumbs at this time. The failure of proper contraction is probably due to the excessive distension to which the uterine muscles were previously subjected, then, too, to the fact that a sudden premature interruption of pregnancy took place under which condition, the uterus naturally shows a sluggish contraction, and lastly to the presence of an actual acute metritis.

DIAGNOSIS

The great majority of antepartum hemorrhages are due to a separation of the placenta, but a differential diagnosis between this condition and placenta praevia is necessary. In the deeper seated placentae, the bleeding usually takes place during the period of cervical dilation and almost without failure ceases when the membranes are ruptured. While in the condition under discussion, hemorrhage often does not occur until the period of expulsion has become well advanced and continues after rupture of the membranes. Since, even in low insertion, the placenta cannot always be felt, one would be justified in rupturing the membranes, provided the position of the fetus is a longitudinal one; but if in spite of this procedure bleeding continues in the presence of good uterine contractions, there would hardly be any doubt as to the diagnosis of premature separation of a normally inserted placenta. If placental tissue can be felt either cover-

ing the internal os or lying to one side, the recognition of placenta praevia is a simple matter. The differentiation between rupture of the uterus and ablatio placenta may be difficult. As a rule, however, rupture occurs late in labor after prolonged and continuous severe pains, while ablatio placenta usually happens after labor is well established, still it occurs earlier in labor than rupture. Ablatio also occurs in late pregnancy, while this is not true of rupture, unless the latter has been caused by traumatism. In ablatio the uterus is symmetrically enlarged and extremely tense, in rupture on the other hand, the organ is small on one side and the fetus is palpable on the other. In ablatio pain is constant, while in rupture the pains cease almost instantly. Let me reiterate—when there is no external bleeding, evidence of shock and anemia are present, when the uterus is hard, and continuous pain is present, when there has been a sudden increase in the size of the uterus and the fetal parts cannot be felt and the fetal heart tones are absent, one can hardly fail to make a correct diagnosis.

Though it is true that in placenta praevia or low insertion of the placenta, with undilated cervix, similar grave symptoms may arise, the degree of shock will be in direct relation to the amount of external bleeding and the typical uterine changes, as previously described, will be entirely lacking.

PROGNOSIS

The fetal mortality is naturally very high, since, even in partial separation a long period may elapse before the birth of the child, and the absolute interruption of the placenta circulation in the cases of complete separation, makes fetal death inevitable. The condition, however, is a very serious one for the mother as well. Goodell reports fifty-four maternal deaths out of 106 cases, of these forty-one died undelivered, while forty-three cases in which no attempt at delivery was made, thirty-two mothers died. The prognosis depends chiefly on the amount of blood lost and secondly on the manifold dangers connected with the difficult obstetric interferences.

TREATMENT

No ironclad rule can be laid down, but each case must be decided on its merits and treated as the indications demand.

The treatment depends upon the amount of hemorrhage, not only external, but internal as well, as indicated by the general evidences of shock, and upon the cervical dilatation. It will be our duty then to stop the bleeding and this can be accomplished

only by prompt delivery, and finally, to overcome the severe shock and anemia.

The method of delivery for the ultimate control of bleeding will depend on the amount of cervical dilatation. In the presence of complete cervical dilatation forceps may be applied to the presenting part, or if a vertex presentation, with head still above the pelvic brim, version may be the method of choice, followed by the prompt removal of the placenta. In the absence of proper uterine contractions the various methods to establish proper contractions should be made use of. When the cervix is only partly dilated or completely closed, rupturing of the membranes is practiced at times, and as previously mentioned, may be done for diagnostic purposes. One must, however, remember that one objection to this procedure lies in the fact that the intra-uterine pressure is thereby diminished, the counter pressure against the placenta is removed and the tendency to renewed or aggravated bleeding increased. Since these possibilities exist, the artificial rupture of the membranes should be done to aid the delivery only when the bleeding is not severe, when the pains are strong and when the labor has advanced far enough so that an early termination of the same may be expected. In such cases if the bleeding increases and labor is not progressing with sufficient rapidity it must be terminated in a way which will be least injurious to the mother. In other cases it would be far better to refrain from rupturing the membrane so as not to interfere with a more major procedure, should such operation become necessary. Packing the vagina with gauze or cotton has no place in the treatment of this condition. As rupture of the membranes is generally to be condemned so also is the so-called accouchement force to be avoided.

On several occasions, in former years, I have made use of the Bossi dilator but since that time I have come to consider other methods of delivery more satisfactory both from the standpoint of rapidity and safety.

Vaginal cesarean section is a difficult operation and can never compete with the abdominal cesarean section. Abdominal cesarean section should be the operation of choice when the cervix is completely closed or almost completely closed. It offers the best chance for the mother, it gives the child the only possible chance of living and it enables the operator to deal with the post partum bleeding uterus in the only sure way, namely, by supra-vaginal amputation. Shock, is of course, handled in the usual way and with out present facilities of obtaining blood

from a donor, the severe results of a great blood loss are promptly and effectually cared for.

Immediate emptying of the uterus in every case of premature separation will not be necessary, for the milder cases will bear watching and not infrequently labor will set in spontaneously and terminate without any mishap. The severe types of bleeding, however, whether concealed or revealed, demand prompt and rapid treatment.

CONCLUSIONS

(1) Complete ablatio placentae is not so rare as is generally believed and mild cases are quite common.

(2) The true etiology is not known, but toxemia and injuries seem to play the chief role, though traumatism is the rarer cause and even seems to be a doubtful factor.

(3) Watchful waiting should be applied to all mild cases, while when the hemorrhage is concealed and severe anemia and shock are present, in the absence of cervical dilatation, the abdominal cesarean section should be the operation of choice followed by supra-vaginal hysterectomy in the event of failure of proper uterine contractions.

(4) Proper diagnosis will lead to prompt and rapid interference and the selection of a method least injurious to the mother.

—R—

"My Ulcer"

E. F. DAY, M. D., Arkansas City

Read at the Annual Meeting of the Kansas Medical Society at Wichita, May 7-8, 1924.

Those of you who are expecting a scientific exhortation on ulcers are doomed to disappointment. In fact this paper should be entitled "The Confessions of an Ulcerite," "Many Months Association With My Ulcer," or "Who's Who Among Diseases." Many months spent in very close contact and intimate acquaintance with one certain, important ulcer makes me feel that I can speak with authority at least upon my ulcer. In all I may say in regard to ulcers, you must remember that I am usually talking about my ulcer, as I know it better than any other. And I cannot truthfully say, after many months of very close companionship and relationship, that I am at all friendly or have any kindly feelings for it. It is always with me, always making its presence felt, and never hesitates to make me know of its abiding faith and contentment to remain my constant companion and close associate.

Its presence first became manifest when I noticed an indigestion following certain foods, particularly sweet foods, a slight

burning or sense of fullness in the stomach. This would be present for a few days, then absent for weeks, so I thought little about it and attributed it wholly to an indiscretion in food intake. Soon the intermissions were less frequent and the attacks of longer duration. It became particularly worse at spring and autumn, exposure to cold seeming to bring on an attack of stomach trouble. Then appeared a peculiar, boring, dull pain extending through to the back, this pain being fairly constant, not severe, but annoying to the extreme. By this time I felt that there must be some definite lesion somewhere.

As my appendix had been removed some years ago, or so, at least, my friend, Dr. Snyder assured me, and having left a scar in the lower right abdominal quadrant as proof, I could not say chronic appendicitis. Could it be gall-bladder, or ulcer, and if the latter, where and what type? There was no jaundice, no severe colicky attacks, very little tenderness over the gall-bladder region, but by this time some rather prominent, decisive symptoms had appeared. Light food relieved the pain for about an hour, a heavy meal aggravated it in one-half hour, sour belching became frequent, pain more severe, a general tenderness and soreness about the whole gastric region, loss of weight, and a nervousness not usual heretofore. My usual good temper was easily aroused and I found myself becoming disagreeable to everyone. And I want to say in passing, that feeling is caused more than any one thing from the constant presence of that dull boring pain, from which one simply cannot get away. Lying down at night it is better until the two o'clock pain comes, which, with me, was as regular as an alarm clock. Soda, a glass of milk, or even a glass of water, will relieve that after-midnight pain, but nothing else will, and if there is any more rest for that night, something must be taken.

From these symptoms I concluded that possibly an ulcer did exist, so I took myself and my ulcer to a noted internist in the middle-west. Here I was thoroughly examined. First, of course, history, both family and personal, and because cancer had had a special predilection for many of my forbears, I was duly and properly frightened by the young medico who was taking my history. A test-meal of arrow-root crackers and water was given and then removed in 45 minutes, analysis showing no blood but a very high acidity. Examination of stools showed no blood and an ab-

sence of parasites. But x-ray examination apparently told the story, a very definite duodenal ulcer was perceptible, both on the plates and by the fluoroscope. The x-ray also showed what appeared to be a button about the size of a nickle, directly under the scar of the appendiceal wound, and I was told that it was a possible stone in the kidney or ureter. The doctor advised that rest, diet, and medicinal treatment would cure 90% of duodenal ulcers.

But knowing that the Mayos in their clinics and their written works say otherwise, I concluded I had better have their opinion, so visited Rochester, where the same routine, with a few variations, was gone through. Dr. Carman, on looking at the pictures, asked if the surgeon who operated me had lost a button from his B. V. D's. Snyder has since assured me he left the operating room with all buttons intact. However, the same diagnosis as to ulcer was made and Will Mayo insisted on an immediate operation. I was about ready for this when I met three other doctors who were there for their operation for duodenal ulcer. They were lean, hungry, unhappy, cadaverous-looking individuals and the sight of them set me to thinking.

First, that all the various men I had seen were looking upon my ulcer in an impersonal manner. It was my ulcer, and to me, a very personal one. It was not one of a series or group, but my very own ulcer and should be studied as one, its peculiarities noted and then its fate decided.

After close reading, I decided that ulcers were of different types, locations, and characteristics, and that, perhaps, upon which type and location depended somewhat the choice of procedure. I found that duodenal ulcers do not often terminate in malignancies; that a broad, shallow ulcer, such as mine, does not often perforate nor often has a tendency to sudden severe hemorrhage; that small punctate ulcers of the lesser curvature of the stomach very frequently become malignant, have a tendency to rupture and severe hemorrhage; that the shallow ulcer, elsewhere in the stomach, fairly frequently is malignant but does not so often rupture, that authorities pretty well agree that the excessive acidity keeps the ulcer from healing, also that a collapsed or empty organ allows an irritation from friction contact, so I felt that both the surgeon and the internist were in the main correct; that probably many, and certainly some ulcers were curable without operative measures, and that many required surgical

interference, both to cure and to avoid the dreaded malignant aftermath. At least, my ulcer would have a chance to get well, first by treatment, and should it be too intent on my companionship, and remain with me, then the knife should be its executioner.

Then came the choice of treatment. I found that about 1900, a Dutchman made a reputation with his treatment which consisted of 40 grs. of Bismuth, three times daily, and one ounce of milk every hour the first week, two ounces every two hours the second week, three ounces every three hours the third and fourth weeks, then to follow with a cereal diet for a few weeks when general diet was to be resumed. Theoretically the Bismuth was supposed to coat over the ulcerated area and to minimize the acidity, and the milk, as a non-irritating, non-acid provoking diet to allow the ulcer to heal. It seemed to me, the trouble with this treatment was the lack of sufficient food and because of which, a lessening of the healing power of the body. There would be a rapid loss of flesh, a lowered healing power, so that treatment was not to be selected. Lenhart had offered a treatment, advancing the idea that diet alone would cure, that it was necessary to keep the body cells highly nourished, and that some food must be constantly kept in the stomach, thus avoiding friction and keeping down hyper-acidity. To me the trouble with this was there would be an evident high hyper-acidity all the time, which would most certainly prevent rapid healing.

Sippy had done a great work and offered more than any other non-operative procedure heretofore. His milk and cream furnished ample food and his soda would counteract the acid. In fact, the acidity could be maintained at any point desired. The only objection I could see was the badly coated tongue from a milk diet and the nausea so often accompanying it.

Chase, of N. Y., offered a modified Sippy treatment that seemed most ideal. It was as follows: First, hospitalization and complete rest in bed; x grs. of calcined magnesia and xx grs. of sodium bicarbonate alternating every hour with x grs. of calcium carbonate and xx grs. of sodium bicarbonate from 8:30 a. m. till 8:30 p. m. and every half hour from that time till 10:30 p. m.; the first three days, 45 cc. of cream and 45 cc. of milk every hour; the fourth day, the same plus one egg; the fifth day, 90 cc. of cereal is added; the sixth day, an extra egg is allowed; the seventh

day, 90 cc. of cereal is given twice in addition to the milk and cream; the eighth day, the same as the third day plus 1 egg at 8:00 a. m., 90 cc. of cereal at 9:00, 1 egg at 10:00, 90 cc. of cereal at 11:00 and 1 egg at 4:00 p. m.; this is continued till the fourteenth day, when at 8:00 a. m. there is given the milk and cream the same as the third day, plus 1 egg, 90 cc. of cereal at 9:00, 1 egg at 10:00, 90 cc. of pureed peas at 11:00, 90 cc. of mashed potatoes at 12:00 noon, 90 cc. of cereal at 3:00 p. m., 1 egg at 4:00, 90 cc. of cereal at 5:00, custard, sans sugar, at 6:00, milk and cream at 7:00 and 8:00; this is continued till the twenty-first day, varying the vegetables with carrots and beets, all of which are pureed; twenty-first to twenty-eighth days, breakfast of prune puree, cereal, eggs, coffee and toast; dinner of creamed soup, eggs, potatoes, rice, pureed vegetables and custard; supper of crackers with bread and butter, boiled rice, boiled macaroni, eggs, custard and stewed fruit pudding. During this time, frequent 4 o'clock aspirations of stomach contents are made and acidity noted, also an occasional 2:00 a. m. aspiration. After five or six weeks, the powders are left off for three days every 60 days, then later, five days at the end of each 60 days. Occasionally, for three days, ordinary full meals may be taken but must be followed by the hourly powders. This treatment should be continued for one year. Worries should be avoided, as also should fatigue and exposure. No raw fruits should be taken for six months and the 4 S's regularly observed, that is, no Sugar, no Sweets, no Spices, no Spirits. To me this looked like a rational treatment, the stomach contents is kept alkaline, ample food is given to build up body energy, and food is kept constantly in the stomach. So under the care of Dr. Chase, of New York, at the old Post-Graduate Hospital, I did my bit.

I cannot yet say the ulcer is healed, but the pain is gone, 24 pounds in weight have been added, most of the irascible temper has disappeared and instead of the old, constant, listless languor a real feeling of energy has begun to appear.

I am firmly convinced that the shallow, non-bleeding ulcers are medicinally curable and that the punctate, bleeding type should be treated surgically. Also, that the physician, when consulted, should use every means to ascertain the type and location, and the probability of the patient to fol-

low treatment and instructions closely before choice of treatment is advised.

In fairness to Dr. Snyder, I might say the afore-mentioned button is fairly definitely proven to be only a concretion at the former sight of the base of the appendix.

R Colds

F. M. WILEY, M. D., Fredonia

Read before the Wilson County Medical Society at Fredonia, Sept. 10, 1924.

A few months ago a member of this society read a paper on "Fractures" which he introduced with the statement he considered it more profitable for the society to discuss subjects that frequently come within the experience of our members, than to devote the time to the consideration of problems more rarely met. The paper and the discussion of it resulted in a very interesting meeting. With the same idea in mind I shall direct your attention tonight to "Colds." Surely the subject is sufficiently common-place.

The phenomenon of the common cold comes frequently within the experience of every individual. The percent of those who are immune must be very small indeed. The common cold has no scientific standing—medical literature is almost silent regarding it. It's nomenclature is the product of the patent medicine advertisers and the laity in general. The only reference to a cold I have found in a hasty glance through a half dozen books on practice is a bare definition, "A catarrhal or other disorder due to exposure to cold and wet." Why this dearth of literature on cold? Does the thing not exist as an entity? Or does it really exist, and is it then a matter of too little importance to merit attention? Personally I think it is a subject of an importance excelled by that of few subjects in medicine. I rather think that the effectual immunization of the race against the process of catching cold, or contracting cold, would consign at least a third of the physical ills which torment mankind to the innocuous condition from which Pandora's curiosity released them.

According to the United States Public Health Service, the most prevalent illness in the United States is the common cold, and vital statistics do not record the enormous number of persons who annually are subjected to suffering, inconvenience, and economic loss because of common colds.

Tice devotes fifty pages to Yellow Fever, and nearly as many to Asiatic Cholera and Leprosy, and he broadcasts his work over

Kansas where these diseases are practically unknown, but the common cold, which we meet every day is totally ignored. Forchheimer alludes to it in quotations, but prefers to treat it under the more dignified title, "Acute Naso-pharyngitis."

I venture there are few of us who do not dole out one or the other of the cold tablets manufactured by our leading pharmaceutical houses; maybe it will not be unprofitable to compare our experiences as to our object in doing so, and the results obtained.

How many hard questions have you been asked about colds? Why does one take cold when others subjected to the same conditions do not? Why does one take cold today though on other occasions he failed to do so under the same conditions?

Why does one person with a cold have a profuse watery discharge from the eyes and nose, and another expectorate tenacious heavy mucus from the throat or bronchial tubes? Why is cold in one person a fore-runner of ear ache and in another of pleurisy, or pneumonia, or rheumatism, or consumption? Explain how it is a man may one day wade about in rain and mud, wet to the skin, with a gun over his shoulder with perfect impunity, and the next day catch a cold that will rack every nerve and muscle in his body simply as a result of changing his shoes for oxfords, or leaving off his collar, or having his hair trimmed? Why does cold in one person produce coughing and in another diarrhea? Doubtless there are scientific answers to some of these questions. I leave it to you, and pass on to a brief description of some colds I have met, and possibly to some practical suggestions.

Let us take a peep at one or two pictures of the process of taking cold. A man comes in from his day's work, dolls up a bit, eats a hearty supper and goes to town in his shirt sleeves. When he is ready to go home the wind has changed, but he stands around the bank corner talking till all the honest towns-people have deserted him and sought their beds; then, already chilled he drives home facing a damp and cold wave of air fresh from the Dakotas. Proud of his strength he retires with no thought of danger. But in the morning he experiences a general muscular soreness, and a little hoarseness; his eyes are red and soon his nose begins to drip. But it is "nothing but a cold," so he goes about his work. Now he is at "the parting of the ways." If his resistance is great, and if at this critical

time he is fortunate enough not to come in contact with any of the endless variety of disease germs which lie in wait for susceptible victims, his vital forces respond to the stimulus of exercise, the excretory organs function actively, and once more he has proven to his own satisfaction that it is silly to pay any attention to a harmless little cold. But how often there is a different story to tell of the day after the exposure. About the middle of the afternoon he is overcome by malaise, and the good wife looks out to see him following the old grays to the barn; his mighty frame is stooped, and in the grip of a chill; his face is drawn, and his hand is pressed to his side. To the wife's anxious inquiry he answers he has a stitch and wants to lie down. The doctor says "pleurisy," probably "pneumonia" and just as naturally as "cow birds turn into snow birds in December" the "nothing but a cold" has turned into pneumonia, with a result of slowly recovering after weeks of suffering and anxiety, or a scene of flowers that have no fragrance for him and music he cannot hear, depending upon several factors that will occur to you all.

Another picture. A mother brings her daughter to your office; she is emaciated, anemic, and weak; has a cough, and the thermometer reveals a slight fever that has not been suspected. It is spring-time and the history of her trouble dates from a party she attended in February, dressed in lace and silk. There was feasting and dancing, and returning home, she being quite warm, discarded the gauzy wrap that had been provided, and as a result contracted a slight cold. She soon recovered but was left with an annoying cough which persisted until the present time. So after a more or less protracted period of "rest, out-of-doors, and forced feeding" the almost inevitable happens, or a miracle is performed in her behalf.

Just one more sketch. A little pastel of domestic life familiar to us all. But though familiar, who can paint the scene of the night the baby has the croup? Who can portray the anguish of the young mother, or the young father when at one or two or three o'clock sleep is banished by a hoarse metallic barking, and they find their little darling struggling for breath. The wire carries in tremulous tones the message, "Doctor, hurry! the baby is dying." You are informed that the baby was perfectly well when he went to bed, had a little cold for a day or two, but "played

around on the floor all evening." "Played around on the floor." Why are babies allowed to play on the floor? Dad's cold feet are elevated before the fire, but the cold bare floor for the delicate baby. Calcidin may turn the trick, and with the co-operation of the Guardian Angels who are over-worked protecting innocent babes from the consequences of their parents' ignorance and indifference, the little life may be saved. But how often diphtheria develops, or capillary bronchitis, or laryngeal or pulmonary edema, and because of a neglected little cold, there is crepe on the door and sorrow in the home. If there were a little more common sense about common colds Providence would be less frequently falsely accused of taking away the babies. I would like to dwell upon the words, "He played around on the floor." I would like to speak of the entire families of children whose parents apparently consider sniffing and coughing as truly and naturally a harbinger of winter as the migration of the birds. I should like to express my opinion of dads who subscribe to the doctrine of cultivating the powers of resistance by exposure, and practice it on the children by sending them to school inadequately clothed but ride to their places of business or work protected by arctics and gloves. But I pass on.

What of the contagiousness of colds? We have succeeded in isolating the germs of pneumonia, diphtheria, tuberculosis, and influenza, so more or less thoroughly we isolate the patients. Does not our daily experience and every clinical fact equally demand that some such precautions be observed regarding colds? Common colds frequently occur in epidemics and are distinctly contagious. They may sweep through an entire household, city or state, attacking the young, adolescent and middle aged, and frequently result in death to the aged, the weak and the debilitated. Schools, factories and stores are suddenly crippled by epidemics of this sort and the complications and serious disorders following the disease add to the great economic loss produced in this way.

Now I approach a branch of this subject that I am eager to get into. The most constant symptom of a cold is a cough. True there are colds without cough, and there are coughs without cold, but usually there is coughing at some stage of the cold, and an analysis and comparison of coughs will enable us to arrive at some valuable

conclusions as to the pathology involved.

Green's definition of a cough follows: "The term cough covers single or multiple, consecutive, explosive, expiratory acts immediately following glottic closure."

After the causes he says, "It may be voluntary, involuntary or paroxysmal and arises from multitudinous causes and from the irritation of widely separated and diverse regions, though commonly purposeful and intended to remove irritating material from the bronchi and throat."

Many forms of reflex coughs are observed; hysteric cough, dyspeptic cough, and tobacco cough; also a dentition cough in infants.

"Irritation of the lung itself does not cause a cough but unquestionably irritation or inflammation of the bronchial mucous membrane or pleura does. The assumption that any cough is purely reflex or neurotic should be postponed until all other channels have been thoroughly investigated.

Other possible conditions to be considered aside from the affections of the bronchi, lungs, or pleurae are adenoids, enlarged tonsils, impacted cerumen, granular pharyngitis, hypertrophy of the lingual tonsil oruvula, enlarged turbinates, chronic diseases of the accessory sinuses, goiter, chronic heart disease, diseases of the liver, enlarged bronchial glands, aneurysm, mediastinal growths, dorsal caries, occupation, habit and imitation."

I mention these big words and these classifications so that you may not doubt that I am familiar with them, and pass on to a few personal reflections and impressions about coughs in general and the rights of the public. I have already referred to the frequency of colds, I have also ventured the assertion that colds are contagious, undoubtedly the cough spreads the contagion. Man has been defined as, "A bi-ped without feathers." It would be almost as accurate to say, "A man is a coughing, spitting animal."

Off' in the wee small hours of the morning about one or two o'clock, about the time the wheezy tones of Neighbor Edmunsen's Lizzy have ceased to vex my sleepy soul, the silence is broken by the clarion notes of Neighbor Siler's chanticleer; then another bird across the alley takes up the refrain, and another and another, until the night is vocal with the clamorous notes of the feathered songsters. In any audience or club in the winter season one is reminded of this experience when, following the lead of some person afflicted with bronchial

trouble a constantly increasing chorus of coughs renders it almost impossible to enjoy any sort of a program.

I confess I am hypersensitive on the subject of coughing in public. Shut up in a room with two hundred others, forced to have my peace disturbed by constant coughing the force of whose explosion I feel upon my neck, I am given to computing the millions of germs of various kinds with which the air I am breathing is infected. So strong is my aversion to this practice in public that I believe sentiment should be created which would make it impossible for any one afflicted with a cough to attend any place of public worship or entertainment. I believe the time is not far distant when not only this will be accomplished, but such sentiment will be upheld by law. Much of this coughing is the result of habit, perhaps much more is caused by imitation; few people realize to what an extent coughing is under the control of the will. Let the matter be discussed privately and publicly until it shall be generally understood that it is not good form to cough in public repeatedly; then the matter will be brought much more under control than it can ever be through consideration of sanitation.

Two days after writing the last page I have read it and find it too feebly expresses my sentiments on the subject of public coughers, and beg your patience and indulgence while I make another attempt.

The public couger is a public nuisance, and a public menace. He infringes upon my right to enjoy the show, and he jeopardizes my chance to enjoy a long and happy life. For both reasons he should be suppressed. The alimentary canal has a mechanism at each extremity by which explosive sounds may be produced and a volume of wind more or less offensive to the ears and olfactories expelled. The ordinary individual makes no effort to suppress the explosion from the oral extremity in any environment, but repeats it time after time with an air of satisfaction, and a manner that invites sympathy. The other explosion to which I allude is considered a cause for embarrassment to the author of it as well as to every one within hearing distance. The first mentioned explosion may be voluntary or involuntary, the latter, regardless of the fact that it is comparatively void of danger to health, and often esthetically less offensive, is almost invariably involuntary. In fact in the best society it is looked upon with such disfavor that one who produces it is disgraced, and its fre-

quent repetition would consign him to almost irrevokable ostracism. Yet candidly, I personally would prefer his society to that of the habitual public couger. And I do not consider I am unreasonable in holding such a view, for I have the authority of the Good Book that, "It is not that which goeth in by the mouth that defileth but that which cometh out by the mouth," which is not only good spiritual doctrine, but also fully in harmony with the precepts of the State Health Board. I have seen no scripture which condemns the audible escape of colonic gases by the route provided by nature.

I shall not take up your time with the outlining of any treatment for colds. I am simply insisting that it is our duty as physicians to educate the people to not neglect colds in their early stages. Our mothers' and grandmothers' treatment of hot foot-baths, ginger tea, castor oil, and rest in bed saved many lives—it is good enough treatment today. The important thing is to use it early. Vaccines are being somewhat widely used, but I think their value is problematical because of our failure to identify and corral the cold bacteria.

In the issue of the Journal of the A.M.A. for March 8, 1924, two army doctors, E. B. Vedder and H. P. Sawyer, publish the results of extended experiments with the inhalation of Chlorine gas which justify hopes that a real advance has been made not only in the treatment of common colds but also of all other respiratory diseases including influenza. A careful reading of this article impresses me that this may be true. The following is a table published in the article mentioned of a series of cases of various respiratory diseases treated, with the results; and now that a portable apparatus for making and using the gas can be obtained it is certain that many observers will soon be publishing their experiences; these cases were treated with the portable apparatus.

	Cases Cured		Improved	
	No.	No.	Pct.	No. Pct.
Coryza.....	74	72	97.3	2 2.7
Acute Bronchitis...	14	13	92.9	1 7.1
Chronic Bronchitis.	3	1	33.3	2 66.6
Influenza	2	2	100.	. . .

Our safe and sane president was cured of a severe cold of three days standing by this treatment; also Secretary Weeks and several senators have submitted to the treatment, all of whom are enthusiastic regarding the results experienced.

However a later editorial in The Journal

cautions that "The duration of an adequate treatment, the concentration of the gas to be used, the methods by which the gas is to be produced, and similar factors are still the subject of experimentation."

—R—

Amenorrhea in Young Diabetics

H. E. MARCHBANKS, M. D., Pittsburg

Read before the Crawford County Medical Society, September 9, 1924.

After using insulin for the treatment of severe cases of diabetes mellitus for over a year I wish to call attention to two very interesting cases in young women, the parallel of which I have been unable to find in the literature. Neither of these girls had menstruated since they began the insulin treatment until August 10th, this year, one of them menstruated. One had flowed the month before entrance while the other was menstruating on admission.

Case I. Hosp. No. 2241. Miss G. M. W. A girl, 18 years old, who does stenographic work, entered the hospital June 2, 1923, with the history of loss of weight, thirst, hunger, polyuria and loss of strength. She had felt well until about six weeks before when she began suddenly to get up at night to void her urine. Passed urine frequently in daytime as well. Her eyes caused her some trouble, but having used them steadily she sought advice of men, who attempted to remedy the condition with glasses, but failing, referred her to me for physical examination at which time we found sugar present in urine in fairly large amount.

The patient was admitted to hospital two days later. The blood sugar was then 230 mg. The twenty-four-hour quantity of urine sugar was 191 grams. After taking 61.05 grams glucose the blood sugar arose to 500 mg. at the end of one hour; to 430 in two hours and to 390 in three hours.

Her past history showed that she had always been quite well as a child and girl. She had had no rheumatism, no headache, no acute illness. Her menses had always been regular of 28-day interval without cramping. She had of late flowed five or six days. Last menstruation, May 7, 1923. Her family history was negative.

We found on examination a rather poorly nourished girl of 18 years. Height 61 inches, weight 84.5 pounds. Her physical examination was otherwise negative except for one doubtful tooth which was removed. The laboratory findings have been given except there was diacetic acid and acetone in the urine. Her diet was started after the first day of general diet with carb. 13 grams, protein

14.5 gms., fat 87.5 gms., which was the high fat, low carbohydrate, low protein diet of Marsh and Newbury. She remained on this diet for five days at which time she became sugar free, but her blood on the same diet I gave her 30 units of insulin. Blood sugar was reduced to 145 mg. and she got a reaction from each dose of insulin. On the next three days the diet was made carb. 21.5, prot. 30, fat 135 gm. with 30 units of insulin daily. Fasting blood sugar was reduced to 115 mg. No sugar had appeared in urine since the 4th day under treatment. She was discharged on this diet and same amount of insulin. On June 23rd her weight was 89 pounds and her blood sugar still 110 mg. On June 30 her diet was increased to 1683 calories with sugar value of 65 gms. so as to try to bring up her weight. On July 2nd she had still not menstruated so I gave her corpus lutea in 2½ grain capsules three times daily. Weight increased to 91 pounds by July 7th. At this point we increased the sugar value to 84 grams with only 15 units of insulin. Until October 13th we ran the sugar value of the diet from as low as 61 gms. to as high, for a few days, as 141 grams and total calories of 2267. Her insulin dose was from 24 units to 10 units. At this time her weight was 98 pounds.

From November 4th to December 11th remaining sugar free, we reduced the insulin to the place where she was getting no insulin on a diet of 77 grams carb., 60 prot., 191 fat. She was feeling so well that she failed to report for blood sugar until April 19th, 1924, at which time sugar appeared in the urine. Diet was reduced and patient came in for blood sugar test April 26th and it was found to be 247 mg. with CO₂ combining power of blood plasma of 37.2. After much persuasion, for she felt quite well indeed, she came into the hospital for treatment on April 29th when the blood sugar was 298 and CO₂ down to 28.5. On this day we gave her 40 units of insulin and a diet of 45 grams carb., 40 prot., 40 fat. Next morning her blood sugar was 158 mg. and CO₂ was 40. She weighed at this time 104 pounds. Since June 1st her diet has been from 1200 to 1600 calories and she has taken 10 to 20 units insulin daily but her blood sugar has remained at 80 mg and her CO₂ at 50. Beginning August 10th she menstruated for three days profusely, the first time since May 7th, 1923. Since June 1st, however, she has been on a preparation of ovarian, pituitary and thyroid gland that might have had some bearing on the condition.

(See progress sheet, Fig. 1 for period under observation.)

This seems to mean that in order to get these girls to menstruate it is necessary to keep their blood sugar and CO_2 at a fairly normal level as well as to endeavor to straighten out the whole endocrine system. In other words, no matter what diet they are on they must have enough insulin to keep their blood sugar at normal. Dr. Frederick Hipwell, of Toronto, Canada, told me while discussing the condition with him in June, this year, that he had found several girls who had not menstruated during their diabetic history but as soon as they became sugar free and their blood sugar normal that in every case their menses were restored to normal. He suggested also that the protein content of the diet being too high might influence the condition some. I talked with numerous other clinicians both in this country and in Canada and they had had no cases similar to these so gave me no solution for my problem. They were all of the opinion, however, that the insulin was not responsible for the cessation of the menses.

The second case, Hosp. No. 2693 is that of a high school girl, 16 years old, who had seen Dr. Bacon and Parrish, of Mulberry, for pain in the abdomen which was correctly diagnosed by them, subacute appendicitis. However, on examination they found sugar in the urine and referred her to me for treatment. She came into the hospital December 13, 1923, with the following complaints: weakness, enormous appetite which was not satisfied by eating, blurring of eyes, pain in right side which had been coming on in attacks every few weeks. This last attack was apparently more severe than the previous ones. Bowels were constipated, had been taking salts every Saturday for some time. Slept fairly well at night, nocturia (2 or 3) for two or three weeks. Could not get enough to drink. Mouth seemed dry of A. M. Calves of legs cramped at times and were tender on pressure.

Menstrual history. Began to menstruate at 13 years and has been quite irregular. Goes two or three months at a time without a period. Flows five days, cramps during first day or two. Pain in side is perhaps worse at menstruation time.

Past history. Has always been quite well since a child. Had frequent sore throat until her tonsils were out three years ago. Otherwise negative.

Physical examination at that time

showed and now all the rest of them mm. Face was rounded out good and she looked in the pink of condition. Her weight was 56.3 kgm. Height 66 inches. Pressure over appendix nauseates her. Rt. rectus on gentle pressure becomes rigid and tense giving beautiful reflex.

Rectal examination revealed quite marked retroflexion of uterus. Examination was otherwise negative except for laboratory findings which were as follows:

Single specimen of urine which was voided on entrance had a specific gravity of 1060, 11.2% glucose, heavy amount of acetone, several white cells, several hyaline casts. Blood sugar, 286 mg., urea 14 mg., uric acid 3.8 mg., creatinine 1.3 mg. Tolerance test 287-400-571-400 mg. Her blood count was 95% Haem. 4,420,000 red cells and 9,900 white.

We felt in the face of the severe diabetes that the wise thing to do was to treat the diabetes and try to let the attack of pain in the right lower quadrant "ride" if possible. It looked safe with the 9,900 white count and the pain growing less at the same time. We had surely a true diabetes. We, therefore, on December 14 or second day in the hospital gave her only 14.5 grams carbohydrate, 13 grams protein, 87½ grams fat without insulin. Sugar was almost eliminated from the urine but diacetic acid was present. We were not running the CO_2 in the hospital laboratory at that time but the chances are it was fairly low. We feared acidosis so raised the diet to carb. 36, prot. 44, fat 63 on the 15th and on the morning of the 16th the blood sugar was down to 142 mg.

On the 20th we raised the diet to carb. 55, prot. 71, fat 152 with 25 units of insulin and she went sugar free on the next day and remained so until her discharge on the 29th at which time her blood sugar was 143 mg. She felt good and had gained 8 pounds in weight.

On January 21st her blood sugar was down to 130 so we increased her diet to carb. 75, prot. 88, fat 190 and by February 2nd her weight was 137 pounds.

On February 20th she came in again with severe pain in right lower quadrant with marked tenderness over appendix on deep pressure. On light pressure the rectus tightened up at once. We advised removal of appendix which was done by Dr. C. A. Smith on February 25th, 1924. Her blood sugar at this time was 140 mg. CO_2 58.9. He found at operation that the appendix was badly inflamed, ovaries were in good

condition but uterus was small and almost of infantile type.

Her blood sugar at 5:00 p. m. on day of operation went to 222 mg. and CO_2 was 45.6. Next morning, however, the blood sugar was down to its lowest mark of 118 mg. and no insulin had been given since the operation. She made a very happy recovery and left the hospital on the 13th day with a diet of carb. 34, prot. 70, fat 117 and a blood sugar of 182 mg. without insulin. There was no sugar in the urine.

On March 31st her weight was 135 pounds, blood sugar 185, CO_2 50.4 on a diet of carb. 36, prot. 62, fat 119 but had not menstruated since her first entrance into hospital.

Up to this time we had paid very little attention to the fact that she had not menstruated due to her history of missing from two to three months at a time but having gone over three months she began to wonder why. We, therefore, gave her some ovarian extract with a little thyroid and pituitrin.

She went along nicely until April 22nd when she found sugar in her urine. We prevailed on her coming into the hospital again for a few days and found her blood sugar 200 mg. and CO_2 48.5 vol. % and fair amount of sugar in urine. She was afraid that the insulin had caused her to stop menstruating so was about ready to give it up altogether. We reduced her diet to carb. 35, prot. 60, fat 90 and she left the hospital on April 30th with no sugar in urine, B. S. 167, CO_2 48.5 on 5 units of insulin daily. We raised this to 10 units on May 3rd but her blood sugar began again to go up. We advised her to restrict her activities but on May 10th her blood sugar was 286 mg. and CO_2 44.7%. Against my advice she went to a summer resort and when I finally saw her, July 30th, she had 10% sugar in her urine or 250 gm. daily. Her blood sugar was 330 and her CO_2 40. We again ad-

vised her to come into the hospital for further study but she refused.

We learned that she had seen some doctor who had examined her and told her she did not have diabetes and told her to go ahead and eat. She denied this story but she evidently broke her diet very much to bring up the sugar to this degree. She still had not menstruated but felt well and was a perfect picture of health. She will perhaps return in coma or get to the place where she is losing in weight and strength before she decides to let us treat her as she should be treated.

This last patient is an example of what one is up against in treating this most interesting disease. If one has co-operation like in Case 1 results that are almost miraculous can be obtained while if this co-operation is not present one is sadly disappointed. Her progress sheet is attached for the entire period. Fig. 2.

From the experience of these two cases alone I am quite convinced that the amenorrhea of diabetic girls can be overcome if one is able to bring the blood sugar to a low normal level and keep it there.

Just what help, if any, one receives from the other gland compounds I am unable to say but would advise it to be given after the urine is sugar free and blood has been running at a normal or below normal level for a short time the same as is done in non-diabetics.

Give enough calories to keep weight up to a minimum. Keep protein down to 1 gram or at the outside $1\frac{1}{4}$ gram to the kg. of body weight and keep the fatty acid, glucose ratio down to 1.5 to 1 or even lower; in some cases to 1.2 to 1.

Insulin should be given in quantities sufficient to comply with the above. To keep the weight at 10% below normal is a most excellent rule to follow in the handling of this particular type of patient.

CASE 1

Hosp. No. 2241. Miss G. M. W.

Date	Gm Carb	Gm Prot.	Gm Fat	Calories	Sug. Value	Insulin	Gm Ur'ne Sugar	Blood Sugar	CO_2	Weight	Metab Rate
6- 3-23	13	14.5	87.5	887	30	0	191.1	230	....	84.5	.....
6- 4-23	13	14.5	87.5	887	30	0	61.88	.....	....	.....	.....
6- 5-23	13	14.5	87.5	887	30	0	5.75	.....	....	.....	.....
6- 6-23	13	14.5	87.5	887	30	0	9.	210	....	.....	.....
6- 7-23	13	14.5	87.5	887	30	0	5.9	.....	....	.....	.....
6- 8-23	13	14.5	87.5	887	30	0	0	193	....	.....	.....
6- 9-23	13	14.5	87.5	887	30	30u.	0	.....	....	.....	.....
6-10-23	21.5	30	135.	1421	52	30u.	0	145	....	.....	.....
6-11-23	21.5	30	135.	1421	52	30u.	0	115	....	.....	.....
6-12-23	21.5	30	135.	1421	52	30u.	0	115	....	.....	.....
6-23-23	21.5	30	135.	1421	52	22.5	0	110	....	89	.....

6-30-23	30	33	159.	1683	65	30	0	.....	.....	.....	.....
7 -7-23	38	60	115.	1471	84	15	0	.....	.....	91	.....
7-14-23	38	60	115.	1471	84	15	0	143	.....	.....	.....
7-23-23	38	60	115.	1471	84	15	0	.....	.....	.....	.....
8- 2-23	30	40	82.	1220	61	15	0	.....	.....	91	.....
8-31-23	34	58	100.	1268	78	24	0	.....	.....	90.2	.....
9- 1-23	34	58	100.	1268	78	24	0	87	.....	.....	.....
9- 5-23	44	70	132.	1644	98	24	0	.....	.....	.....	.....
9- 9-23	54	70	162.	1954	111	24	0	.....	.....	.....	.....
9-13-23	64	70	192.	2264	124	24	0	.....	.....	.....	.....
9-15-23	70	70	182.	2198	129	20	0	.....	.....	94	.....
9-29-23	80	70	200.	1950	141	15	0	.....	.....	96	.....
10- 1-23	77	60	191.	2267	131	10	0	.....	.....	93.2	.....
11- 4-23	77	60	191.	2267	131	5u.	0	.....	.....	99.75	.....
11-30-23	77	60	191.	2267	131	4	0	80	.....	.....	.....
12- 3-23	77	60	191.	2267	131	3	0	.....	.....	.....	.....
12- 7-23	77	60	191.	2267	131	2	0	.....	.....	.....	.....
12-11-23	77	60	191.	2267	131	1	0	.....	.....	.....	.....
12-15-23	77	60	191.	2267	131	0	0	.....	.....	.....	.....
3- 7-24	77	60	191.	2267	131	0	0	.....	.....	.....	Plus 10
4-19-24	47	60	150.	1778	97	0	Trace	.....	.....	.....	.....
4-26-24	47	60	150.	1778	97	0	Trace	247	37.2	.....	.....
4-28-24	47	60	150.	1778	97	0	Trace	298	29.6	.....	.....
4-29-24	45	40	40.	700	72	40u.	0	298	28.5	.....	.....
4-30-24	45	40	40.	700	72	25	0	158	40	.....	.....
5- 1-24	45	40	40.	700	72	25	0	.....	.....	.....	.....
5- 2-24	45	40	40.	700	72	.....	0	.....	.....	.....	.....
5- 3-24	45	50	90.	1190	83	.....	0	.....	.....	.....	.....
5- 4-24	45	50	90.	1190	83	.....	0	.....	.....	.....	.....
5- 5-24	45	50	90.	1190	83	.....	0	167	50.2	.....	.....
5- 7-24	45	50	90.	1190	83	40	0	.....	.....	104	.....
6- 1-24	45	50	90.	1190	83	.....	0	83	50	.....	.....
7- 2-24	50	70	90.	1290	100	10	0	80	48.6	100	.....
7- 3-24	55	56	130.	1614	110	20	0	80	.....	.....	.....

CASE 2

Hosp. No. 2693. Miss B. C.

Date	Gm Carb	Gm Prot.	Gm Fat	Calories	Sug. Value	Insulin	Gm Ur'ne Sugar	Blood Sugar	CO ₂	Weight	Metab Rate
12-13-23	*					.....	11.2%	.....	.....	122	.....
12-14-23	13	14.5	87.5	897	30	.....	2 gms.	287	.....	.....	.....
12-15-23	36	44	63.	887	67	.....	5.8	.....	.....	.....	.....
12-16-23	21	44	63.	827	52	.....	4.4	142	.....	.....	.....
12-17-23	38	80	127.	1617	97	.....	0	.....	.....	.....	.....
12-18-23	38	80	127.	1617	97	.....	13	.....	.....	.....	.....
12-19-23	38	80	127.	1617	97	.....	32	189	.....	.....	.....
12-20-23	55	71	152.	1872	111	25u.	6	.....	.....	.....	.....
12-21-23	55	71	152.	1872	111	25	0	.....	.....	.....	.....
12-22-23	55	71	152.	1872	111	25	0	.....	.....	.....	.....
12-23-23	60	77	158.	1970	121	25	0	.....	.....	.....	.....
12-24-23	65	77	158.	1990	126	25	0	.....	.....	.....	.....
12-25-23	70	77	158.	2010	131	25	0	.....	.....	.....	.....
12-26-23	70	83	164.	2088	134	25	0	.....	.....	.....	.....
12-27-23	70	83	164.	2088	134	25	0	143	.....	.....	.....
12-28-23	70	90	190.	2350	141	25	0	.....	.....	.....	.....
12-29-23	70	90	190.	2350	141	25	0	.....	.....	130	.....
1- 5-24	65	80	180.	2200	129	0	0	.....	.....	.....	.....
1-21-24	70	83	180.	2232	136	0	0	130	.....	.....	.....
2- 2-24	75	88	190.	2362	145	.....	0	0	.....	137	.....
2-20-24	75	88	190.	2362	145	.....	0	181	.....	133	.....
2-21-24	70	80	171.	2139	133	10	0	0	.....	.....	.....
2-23-24	70	18.1	0.	300	73	10	0	140	58.9	.....	.....
2-24-24	70	80	171.	2139	133	10	0	137	53.2	.....	.....
2-25-24	0	0	0.	0	0	0	7.15	222	45.6	136	†
2-26-24	40	4	0.	176	42	0	0	118	43.8	.....	.....
2-27-24	50	5	0.	220	53	0	0	100	48.5	.....	.....
2-28-24	58	11	28.	537	67	0	0	133	54.1	.....	.....
2-29-24	70	13	49.	773	83	0	0	185	57.9	.....	.....
3- 1-24	75	13	49.	793	88	0	0	0	.....	.....	.....
3- 2-24	77	23	60.	940	96	0	0	0	.....	.....	.....
3- 3-24	80	60	100.	1460	125	0	0	0	.....	.....	.....
3- 4-24	80	70	120.	1680	133	0	0	250	57.9	.....	.....
3- 5-24	34	70	117.	1469	87	0	0	.....	.....	.....	.....
3- 8-24	34	70	117.	1469	87	0	0	250	50.4	.....	.....

3- 9-24	34	70	117.	1469	87	0	0	182.	....	\$	.....
3-15-24	34	70	117.	1469	87	0	0	154	....	131	.....
3-31-24	35	80	101.	1369	91	.....	.....	185	50.4	133	.....
4-17-24	35	51	101.	1253	75	.....	.....	215	....	.....	.....
4-25-24	35	51	101.	1253	75	.....	.....	230	39.3	.....	.....
4-26-24	20	10	10.	210	27	.....	3	.....	.....	.....	.....
4-27-24	35	50	70.	970	71	0	.....	200	48.5	.....	.....
4-28-24	35	60	90.	1190	79	.....	.....	.....	.....	.....	.....
4-29-24	35	60	90.	1190	79	.....	.....	167	48.5	.....	.....
4-30-24	36	62	119.	1463	83	5u.	.....	.....	.....	.....	.....
5- 3-24	36	62	119.	1463	83	10	.....	244	52.2	.....	.....
5-10-24	35	50	101.5			10	.....	286	44.7	.....	.....
5-17-24	35	50	101.5			10	.....	188	42.5	.....	.....
6- 7-24	35	50	150.			10	.....	307	40	.....	.....
6-11-24	35	50	150.			10	.....	256	48.5	.....	.....
†					
7-30-24						10u.	250	350	....	.....	.....
7-31-24	25	40	80.			30	.....	.....	.....	.....	.....

*Liquid Diet.

†Out of communication from 6-11-24 to 7-30-24. Had been off diet most of time.

‡Appendectomy.

§Discharged. Condition good despite ovarian compound.

Insulin and the Nature of Diabetes Mellitus

Although the discovery of insulin has carried us nearer a solution of the problem of defective carbohydrate metabolism. P. J. Cammidge, London, England (*Journal A.M.A.*, Nov. 1, 1924), reminds us that there remains too much uncertainty regarding the exact relation of the pancreas to sugar metabolism to permit of a precise definition of diabetes which will be universally acceptable. The evidence at present available suggests that clinical diabetes is not a disease of constant etiology or pathology, but is more probably a symptom complex originating in various ways, all of which, however, eventually give rise to a progressive deficiency of the internal secretions of the pancreas if the primary cause is not removed or controlled. The relative or absolute deficiency that appears to exist in most cases of hyperglycemia when they come under observation, and the specific antiglycogenolytic function of one of the pancreatic hormones, explain why the administration of insulin has been found to have immediate beneficial effects in all cases of diabetes; but it is clear that unless this deficiency is mainly functional, and is not dependent on extrapancreatic causes, no lasting improvement will follow its use. If the treatment of diabetes is to be radical and not merely palliative, the exact conditions obtaining in each case must be determined, and appropriate measures must be taken to deal with them. In many instances in which insulin injections would otherwise have had to be continued most probably for the remainder of the patient's

existence, they have been discontinued, or their use has been altogether avoided, when the primary cause of the defects of carbohydrate metabolism has been discovered and successfully treated.

—R—

Pathologic Basis for Reontgen-Ray Treatment of Tonsil Disease

The work of serious and unbiased workers in radiation and laryngology make W. Warner Watkins, Phoenix, Ariz., (*Journal A.M.A.*, Oct. 25, 1924), feel justified in the contention that there are types of pathologic changes of the tonsil which are amendable to radiation treatment and which should be so treated by preference. With due regard for exceptions, Watkins found the following types of pathologic changes amendable to irradiation and that they should be so treated by preference: (a) Simple hypertrophy, whether accompanied by adenoids or not. (b) Chronic interstitial tonsillitis of the hyperplastic type. (c) Chronic fibrous interstitial tonsillitis, and chronic follicular tonsillitis with little or no hyperplasia are not so remediable, and the results will depend entirely on how much lymphoid tissue there is present to be shrunk by irradiation, and how effectively the crypts can be obliterated by such shrinkage. As a rule, such tonsils, if dangerous to the general health, had better be removed. (d) When there is evidence of retained pus within the tonsil, or internal to it, tonsillectomy is the preferable treatment.

—R—

A young man took his girl out in a canoe in the park lake and paddled her back.

THE JOURNAL

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W. E. McVEY, M.D. - - Editor

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When one joins a county medical society he becomes a *member* of the American Medical Association. He does not thereby become a *fellow* of the American Medical Association. Something more is required to gain fellowship—not much it is true, but just enough that a good many are not fellows who should be. Every member of a county society is eligible to fellowship in the American Medical Association, but in order to become a fellow he must make application on a regular form and pay annual dues.

There is very little difference in the status or the privileges of a member and a fellow. Only one who has been a fellow for two years can be elected a delegate to the annual meeting of the American Medical Association. Otherwise the only difference is that a fellow contributes to the support of the organization while a member does not. A fellow pays annual dues of \$5.00 of which one dollar goes to the organization and four dollars to the Journal which is sent to him without further cost. A member, if he wishes the Journal, pays a subscription price of \$5.00 a year but no part of this goes to the support of the organization directly. It costs you just the same to subscribe for the Journal as to be a fel-

low and receive the Journal as part of the perquisites.

At this time and under present conditions it seems quite absurd that there should be any distinction of this kind and it is to be hoped that in the very near future every member of a county society will thereby be a fellow of the American Medical Association, paying his annual dues to that body with the dues to his county and state societies.

In 1901, when the federation of state societies had become a fact and the reorganization of the bodies was begun, it was regarded as very essential that every qualified physician should be taken into the county societies and that every obstacle to their admission should be removed. Lest many who were not members of the American Medical Association might resent any attempt at coercion, particularly if such coercion involved the payment of dues, it was decided to create a class of dead head members, or, if you prefer, noncontributing members. These members might subscribe to the Journal if they so desired, just as one not a member might do. Or they could become fellows on application and payment of dues and receive the Journal with no additional cost.

Too many of the members of our society are noncontributing members of the American Medical Association. The suggestion is therefore offered that when the time comes to renew your subscription to the American Medical Association Journal you ask for a blank application for fellowship and send it in with the same amount of money you would send with your subscription. A very important concession has recently been made in that if you prefer one of the other magazines published by the American Medical Association, you may have it sent in place of the Journal by paying the difference in cost. This will certainly be appreciated where two or more members are associated or occupy the same office. The American Medical Association now publishes several medical magazines that are the very best obtainable.

At the annual conference of secretaries

of state societies held at the American Medical Association headquarters in Chicago, November 20 and 21, there was quite a little discussion on the subject "What's the Matter with the County Society" Had the question been "What's the Matter with Some County Societies?" the discussion would probably have brought out some definite facts and some profitable conclusions.

There is nothing the matter with the county society, in the abstract, but there are a good many things the matter with, at least some, county societies. In the first place there are counties in which there are not a sufficient number of doctors to maintain an active society. There are sections in Kansas where all the doctors in twelve counties are barely enough to insure two profitable meetings a year. With long distances to travel the success of a meeting in such societies depends very much upon weather conditions, professional engagements and the attractiveness of the program. There are county societies, in this and every other state, with a membership of ten or twelve, that have regular monthly meetings, interesting programs, good attendance, in which there is a spirit of good fellowship and a fraternal co-operation in all things in which the profession is concerned. There is nothing the matter with these societies. In a county where such a society is maintained, every eligible practitioner belongs, or wants to belong. None of them can afford to stay out if he can get in.

There are other county societies with as many or more members that meet once a year, if the constitution does not specify too large a quorum. It usually is a business session at which new officers are elected and the annual dues are collected and possibly a paper is read or a few case reports are made and the society adjourns. There is certainly something the matter with societies of this kind. If one asks the members they will give a variety of reasons, such as lack of railroad connections between towns, poor automobile roads, personal differences, etc. Every reason but the real one, which is lack of good officers.

An active energetic president and live enthusiastic secretary will make a good county society in spite of inconvenient railroad facilities, bad roads, etc. A real live secretary will get every eligible practitioner in the county into the society; and with the co-operation of the president he will have such attractive programs that every member will be on hand at the regular meetings.

Of the officers the secretary is the most important. There is a man in every county that will become a good secretary if he is waked up and given a chance. It is not always easy to find him, but he will usually show some symptoms.

It is certainly not necessary that a county society should function merely as a scientific body and that its meetings should be devoted entirely to the reading of papers and reports of cases. There are very important concerns in which the members of a society may find much to interest and profit them. County society meetings to which the public is invited and at which a popular lecture on hygiene or some kindred subject is provided, are well worth considering. Such a lecture should preferably be given by some member not a resident of the town in which the meeting is held

In a good many states the county societies have taken up the matter of periodic health examinations. The idea has already been tolerably well sold to the people and they are simply waiting the opportunity to take advantage of it. This is a field in which the small county society may glorify itself and prove its service to the public as well as its members. For instance, the society may meet once each month, but each time in a different town. Announcement of the meeting may be made sometime beforehand and with it a statement that free health examinations will be made on that day by the members of the society. Blanks for records of these examinations may be secured from the American Medical Association. It should also be made known that free examinations will only be made at that meeting and one time only and further examinations will be made by the family physician. In this way the idea of periodic

examinations may easily be popularized with great benefit to the people and the profession.

There are other directions in which a live secretary may lead his society to function to the interest of its members as well as the public. It is of some importance, however, that a county society should meet often enough to consider the applications of those who wish to join. It is an actual fact that inactive societies keep good men out of the organization. A physician residing in a county in which there is a society that is presumed to function cannot join another county society. He cannot join the society in his own county because it has no meetings.

A well organized medical fraternity, working in harmony and with a spirit of co-operation, will render the most efficient service to the community.

The governor elect is reported to have said that in filling the appointive offices he would look for efficiency in the candidates for these appointments. While unauthorized to speak for the medical profession one may say that a majority in the medical profession will be highly gratified by his adherence to this policy; and in selecting men to fill vacancies in all departments having to do with the affairs in which doctors are concerned would certainly approve a preference of efficiency over political zeal. In fact a majority in the medical profession would welcome the elimination of politics entirely from these departments.

It is reasonable to believe that all of these boards would render more efficient service to the public if there were no questions of politics involved. That the Board of Health should consist of the most competent men available, and that its secretary should have the necessary training and the experience to conduct its affairs efficiently, is certainly prerequisite to the best public health service.

The Board of Examiners is no less important if the standing of the profession in the state is to be advanced. Only men who are themselves well educated and who have

had sufficient practical experience to determine the actual practical fitness in an applicant can fairly meet the requirements of efficient service on this board.

One of the most important boards the governor appoints has control of all those state institutions where sick people are cared for, as well as those where questions of hygiene and sanitation are always an important consideration; and yet there has never been a physician on the Board of Administration. If there is any public position in which the knowledge of an experienced medical man could be used for the benefit of the people it is on this board. There is no one of the institutions under the control of the Board of Administration in the conduct of which the knowledge and advice of a competent physician could not be used to advantage.

CHIPS

"One reason for the anti-evolutionist is evolution never did anything for him."

The difference between an educated doctor and an uneducated one is, the educated doctor knows when he don't know and the other one does not.

Diaphragmatic breathing cures asthma? This suggestion was advanced at least twenty-five years ago, but there are still a good many cases of asthma. Was anyone ever cured by that method or treatment? If not, why should it again be brought to the light.

A chair for the purpose of teaching what to forget should be added to the modern medical school. That would permit the curriculum to be further expanded without greatly increasing the burden of the student. It would also save the graduate the necessity of unlearning so much through experience.

Occupational therapy is now a classical remedy for ennui. It used to be called "work." The new name makes it more effective. An unfriendly dame suggests the installation of an old time tread mill in every home as an economic proposition. It would serve both as a domestic power plant and an efficient substitute for cow pasture pool.

There is usually much difficulty in ar-

ranging a diet for diabetics that is palatable. The Knox Company has published a book giving recipes for gelatine combinations that should aid very materially in such cases. The food values are stated in each recipe. This little book will be sent on request, see advertisement.

There were thirty-three deaths in thirty-six cases of malignant pneumonia (bubonic plague) in Los Angeles during the latter part of October and up to the 12th of November. When the disease was discovered it took just fifteen days to stamp it out and raise the quarantine. Health boards and epidemiologists seem to be worth while.

We now know how radium acts. A noted physicist has explained the matter. A gram of radium shoots off one hundred forty-five thousand billion particles, which are called alpha particles, each second. The speed at which the radium particle trots out knocks the contents of the atom into smithereens and a new chemical combination of the atom contents is arranged which, inadvertently, destroys living tissue.

A survey of the narcotic consumption was made in the county of Allegheny in Maryland, selected as fairly representative of average conditions. In this county of 69,938 inhabitants the opium equivalent of opiates used was 69.81 pounds of opium and the total cocaine equivalent was 293.13 pounds of cocoa leaves; or a per capita consumption of 6.98 gr. of opium and 29.32 of cocoa leaves. Taking this as a basis for calculation the United States will require for its annual needs 105,697 pounds of opium and 443,988 pounds of cocoa leaves. The amount of cocoa leaves will probably be reduced on account of the substitution of synthetic preparations for cocaine for local anesthesia.

According to some recent reports there are 106,990 cases of laryngeal tuberculosis in England. Out of 2541 cases of pulmonary tuberculosis discharged from the King Edward Sanatorium, during a period of ten years, there were 477 cases of laryngeal disease. By modern methods of treatment—sanatorium regime, vocal rest, etc., twenty-five per cent of cases are now regarded as curable.

In an address recently delivered, a well known writer of popular medical and semi-medical articles, states that cataracts are caused by lime salts in drinking water. He claims to have practiced—a small practice

—in three different communities. At one of these places the drinking water contained lime salts, at the other two the drinking water contained only sodium salts. At the location where the drinking water contained lime salts he "saw between two and three thousand cases of cataract," while in the other two places he saw only two or three hundred cases.

At one of the annual meetings of the Kansas Medical Society some years ago, a man who practiced in a town of about eight hundred inhabitants, read a report on 2,500 cases of diabetes occurring in his own practice. One of the members in discussing the report stated that seventy-five per cent of the people in his community showed glycosuria on urinalysis. One wonders if the drinking water in these localities contained sugar.

Along in the early eighties, a member who lived and practiced in Salina, presented at the annual meeting of the Kansas Medical Society a report on "My First One Thousand Cases of Placenta Previa." One wonders what may have been in the drinking water in that locality in those days. What ever it may have been it certainly has disappeared. At any rate placenta previa is not nearly so prevalent there at this time.

Typhoid vaccines have been used in cases of disseminated sclerosis with considerable apparent benefit. Spasticity was reduced and patients became able to walk, according to Mac Bride and Carmichael (Lancet, Nov. 8). Marked improvement followed the intravenous use of sodium salicylate in a number of cases of encephalitis lethargica. They consider that no case has been fully treated unless intravenous salicylates have been given. They also have concluded from their experience that hypertonic saline given intravenously is of value in relieving headache in cases of cerebral neoplasm. Further investigation of the malarial treatment of general paralysis of the insane has not quite shown the brilliant results first reported. Two cases out of twenty-four showed remissions comparable to those obtained in Vienna.

Like the earlier attempts to "disinfect" the alimentary tract through ingestion of selective germicidal substances, the efforts to render the entire organism free from microorganisms by a similar therapeutic procedure have not been attended with con-

spicuous success. Hexamethylenamin was early hailed as promising success in these endeavors. It has been recommended as an antiseptic agent for virtually all the body fluids. It was soon demonstrated, however, that bacterial growth is not prevented by it, even in proportions much higher than could be found anywhere in the body. This important evidence rendered it improbable that the administration of hexamethylenamin can exert marked antiseptic effects in the tissues. In an acid solution hexamethylenamin disintegrates into ammonia and formaldehyd, and to the latter substance are doubtless due the beneficial therapeutic results experienced in the treatment of urinary infection. A recent study demonstrates that the alleged beneficial effects of hexamethylenamin systemically in various infectious diseases cannot be explained by the presence of adequate liberation of formaldehyd in the circulation and tissues. The drug itself is not antiseptic; and the hope of securing systemic antiseptics through its use seems forlorn. Its one field of action seems to be in pathologic conditions in the urinary tract, and it is necessary that the urine be markedly acid. (*Journal A.M.A.*, Nov. 22, 1924).

Delayed perforation of the intestine after an operation for strangulated hernia is more frequent than is generally supposed, and death from this cause is usually explained as being due to leakage around an anastomosis or to infection at the time of operation. The symptoms of perforation may not appear for several hours or days after operation. The only way to avoid this unfortunate complication is always to examine thoroughly the distended afferent loop for a distance of one to two feet beyond the point of strangulation for raw spots, ulcerated areas and minute perforations.

Suspicious patches of gut, if small, should be covered with an omental flap; if large and of doubtful viability, the loop can be brought out of the wound and treated expectantly. If the intestine is gangrenous it should be resected. When symptoms of peritonitis suddenly develop after an operation for strangulated hernia a prompt exploratory laparotomy is indicated. The rent in the intestine must be found and closed, the wound drained, and the patient placed in the Fowler position and treated for peritonitis.—(*Leigh F. Watson, Southern Medical Journal*, July, 1924).

In Remembrance of Dr. L. Reynolds

J. E. Minney, M.D., Los Angeles, Calif.

Dr. Lawrence Reynolds is dead. In his death a good man and physician has finished his work, in Time. He has gone to "The undiscovered country from whose bourn no traveller returns."

I knew him well. He was clinical lecturer in the Kansas Medical College for a number of years. He became a member of the faculty at my solicitation. He did the work of clinician thoroughly. He gave to the College the benefit of his personality and to the students the practical application of his experience, without remuneration. He was a living example to the students and faculty of a quiet, intelligent, forceful, successful, practical man and physician. His influence in his intercourse with both faculty and students was for the betterment of the profession; for moral uplift and a spirit aspiration that makes at one with the Eternal.

To the family I extend my sympathy for its loss. It is true that death was intended the same as life was intended. Why?

"What there is beyond this life,
There's nothing yet to seem.
We look to where Death's curtain falls
And enter but to dream."

Physically we know that—

"New being is from being ceased;
No life is but by death;
Something is expiring everywhere
To give some other breath.

There's not a flower that glads the spring
But blooms upon the grave
Of its dead parent seed o'er which
Its form of beauty wave.

The oak that like an ancient tower
Stands massive on the heath
Looks out upon a living world,
But strikes its roots in death.

The cattle on a thousand hills
Clip the sweet herbs that grow
Rank from the soil enriched by herds
Sleeping long years ago.

Today is but a structure built
Upon dead yesterday;
And progress hews her temple stones
From wrecks of old decay.

Then mourn not death; 'tis but a stair
Built with divinest art,
Up which the deathless footsteps climb
Of loved ones who depart."

And his spirit has returned to the God who gave it.

BOOKS

The Medical Clinics of North America (issued serially, one number every month. Volume VIII Number II, September, 1924, Chicago number). Octavo of 273 pages and 24 illustrations. Per clinic year (July, 1924 to May, 1925). Paper, \$12.00; cloth, \$16.00. Philadelphia and London: W. B. Saunders Company.

The Chicago number of the clinics contains some very practical material. In an introduction to their clinical report on the non-operative treatment of pyloric stenosis in infancy, Gertstley and Wilhelmi say: "The present era may be called the era of physiology rather than pathology. Internists as well as surgeons are realizing the importance of an estimate and study of function more than anatomy."

Friedman discusses the interpretation of prolonged minimal temperatures. Hamil has a clinic on tics. Elliott presents two cases of cardiac aneurysm. Steins clinic has to do with sterility. Mix presents a variety of cases of the usual instructive type. Hamburger has a very interesting article on the prevention of heart diseases. There are nineteen very interesting clinical reports in all.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., professor of diseases of children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totalling 8,000 pages with 1,500 illustrations, and separate index volume free. Now ready—Volume IV containing 1,271 pages with 271 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$10.0 per volume. Sold by subscription.

The fourth volume of Abt's Pediatrics has been received. It covers diseases of the pleura, lungs, thorax, circulation, heart, blood vessels, the blood, endocrine organs, spleen, lymph nodes, kidney, bladder, urine, male and female genitals. The chapters covering the circulation the heart, the blood vessels and the blood, make up one of the most exhaustive works on the subject that has ever appeared. This volume covers the most important field in medicine and it has covered it thoroughly, scientifically and satisfactorily.

An African Holiday, by Richard L. Sutton, M.D., L.L.D., fellow of the Royal Geographical Society of Great Britain; professor of dermatology, University of Kansas; author of a text on Diseases of the Skin, etc. One hundred and eighty pages with more than one hundred original illustrations from photographs made by the author. Published by C. V. Mosby Co., St. Louis.

The book contains the story of Dr. Sutton's African expedition (1923-24) made in the interests of the Department of Natural History, University of Missouri. The party, which consisted of the author, his

brother, Dr. W. P. Sutton, Alan Black, the famous professional elephant hunter, and one hundred and ten native porters and gun boys, spent more than two months in Africa and killed all sorts of game.

This is a very fascinating story Dr. Sutton has written, one to intensely interest even one who seldom strays from his own bailiwick, who knows nothing of big game or the countries in which it is found. The author handles the jargon of the hunter and traveler with the same facility that he unreels the technical phraseology of the speciality he has honored. In writing this story he has maintained his usual conversational speed. He takes one from place to place with bewildering dispatch and yet one seems to have lost nothing by the way. It seems incredible that so much could be told in so little space but the incidents are related in blended sequence so that the story seems complete in every detail.

Basal Metabolism in Health and Disease, by Eugene F. DuBois, M.D., medical director Russell Sage Institute of Pathology; associate professor of medicine, Cornell University Medical College. Published by Lea and Febiger, Philadelphia. Price \$4.75.

The author has attempted to bring basal metabolism into the domain of clinical medicine. Instruments used in estimating basal metabolism are described and the methods for calculation are given. He discusses the basal metabolism of undernutrition, overnutrition, in diabetes, diseases of the thyroid, diseases of the blood, diseases of the heart and kidneys, in fever, and the influence of diseases of the nervous system on basal metabolism.

The Foundation of Health, a manual of personal hygiene for students, by William Barnard Sharp, M.D., professor of bacteriology and preventive medicine in the medical department of the University of Texas. Published by Lea and Febiger, Philadelphia. Price \$2.50.

This book is written particularly for college students and the author aims to instruct them in hygienic practices and show how the functions of the body are affected thereby, with the idea that the student who understands this relationship will be less easily led astray by fads. In other words he appeals to the intelligence of the students by stating some of the most important scientific facts concerning the normal functioning of the human machine.

Safeguarding Children's Nerves, a hand-book of mental hygiene, by James J. Walsh, M.D., professor of physiologic psychology, Cathedral College, New York; and John A. Foote, M.D., professor of diseases of children, Georgetown University Medical School, Washington, D. C. Published by J. B. Lippincott Co., Philadelphia.

The authors endeavor to present for the

use of parents, teachers and physicians some of the more important considerations in the care of children—especially relating to the prevention or correction of abnormal habits of body and mind and conditions largely dependent on suggestion and environment.

The Surgical Clinics of North America (issued serially, one number every other month). Volume 4, Number 4 (Cleveland number—August, 1924,) 248 pages with 218 illustrations. Per clinic year (February, 1924, to December, 1924). Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

The Cleveland Clinic number is especially interesting. Crile and Dinsmore have two clinics, one on carcinoma of the larynx and one on diverticula of the esophagus. Crile also has a very interesting article on surgical mortality in hyperthyroidism. Bunts discusses tumors of the breast and Lowe discusses the role of certain mechanical devices in the diagnosis of diseases of the genito-urinary tract. There are several clinical reports by Phillips. There are also contributions by Nichols, Portmann, Tucker, Waugh, Anderson, Jones, Kimball, John, Watkins, Netherton, Dickson, Peart, Hartsock.

Full Denture Prosthesis, by Dayton Dunbar Campbell, D. D. S., professor of full denture prosthesis in the Kansas City Western Dental College, Kansas City. Published by the C. V. Mosby Company, St. Louis. Price \$7.50.

The first one hundred and twenty pages of this book are devoted to the details of construction of full dentures. Then comes a chapter on psychological phases, a most important consideration. The dentist who can make anyone happy with a mouth full of artificial teeth must be a thorough student of psychology. Other very important subjects are then discussed regarding the application of the various details to denture service. Excellent illustrations appear throughout the book.

International Clinics, a quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, M.D., and numerous collaborators. Volume III, Thirty-fourth series. Published by J. B. Lippincott Co., Philadelphia.

The first six articles have to do with public health and hygiene. Under the head of Diagnosis and treatment is noted an article on diathermy in pneumonia, another on the evolution in the treatment of syphilis, another on the management of peptic ulcer and one on the variation in the chloride content of the blood. Under the head of medicine is an article on the Dick test and active immunization with scarlet fever toxin, and another on the outlook in insulin treatment.

Several other very interesting papers are also included in this volume.

Human Constitution. A consideration of its relationship to disease. By George Draper, M.D., associate in medicine at Columbia university, New York City. Octavo of 345 pages with 208 illustrations and 105 tables. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$7.50 net.

The object of this book as stated by the author is to present to the physician a dependable method for studying morphology; to point out the inadequacies of the existing observational and descriptive procedure and to emphasize the interest and importance of the human constitution. It is the purpose of the book to inquire into the inherent and specific qualities of the individual which react with the adverse forces of environment to produce disease. Numerous measurements, charts, calculations and tables make up a considerable part of the book.

Developmental Anatomy. A text book and laboratory manual of embryology. By Leslie B. Arey, professor of anatomy at the Northwestern University Medical School, Chicago. Octavo volume of 433 pages, with 419 illustrations, many in color. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$5.50 net.

The author stresses the importance of considering the structural rather than the functional aspects of embryology. In the first section of the book the early stages of development are treated comparatively. The second section traces the origin and differentiation of the human organ systems, grouped according to the germ-layer derivations. The third section is a laboratory manual for the study of chick and pig embryos. The book is very well illustrated.

A Manual of Diseases of the Nose, Throat and Ear. By E. B. Gleason, M.D., professor of otology in the Medico-Chirurgical College Graduate School, University of Pennsylvania. Fifth edition, thoroughly revised. 12mo of 660 pages, 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$4.00 net.

Some changes have been made in this edition, particularly in methods of treatment and in surgical procedure. Also the list of formulae has been changed and added to. Although this edition is somewhat larger it still belongs to the manual class and will continue to meet the requirements of students and general practitioners.

Essentials of Prescription Writing. By Cary Eggleston, M.D. Assistant professor of pharmacology, Cornell University Medical College, New York City. Third edition, revised. 32mo of 146 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$1.50 net.

The third edition of this small but very valuable little book shows some changes—just such as were required to render more definite and explicit some of the instruc-

tions in prescription writing. It would benefit a good many of us and do none of us harm to read this little book, and to keep it handy for quick reference.

Operative Surgery. Covering the operative technique involved in the operations of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S., former surgeon in charge of general surgery, Manhattan State Hospital, New York, former visiting surgeon to charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original, and separate desk index volume. Volume V containing 880 pages with 1,118 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index volume free.

The fifth volume of Bingham's Surgery has been received. This volume covers the surgery of the colon, rectum and anus, and the operations upon the kidneys and suprarenal bodies, the ureters, the bladder, the urethra, the penis, the testicles and the structures of the spermatic cord.

This, like the previous volumes, exhibits the intention of the author and the publishers to supply the most complete work on surgery that has ever been published. Nothing seems to have been omitted that could add anything to this volume.

Adolescence; Educational and Hygienic Problems. By Maurice A. Bigelow, Ph.D. Price 30 cents net. **Exercises for Health.** By Lenna L. Meanes, M.D. Price 30 cents net. **The Child in School; Care of Its Health.** By Thomas D. Wood, M.D. Price 30 cents net. **The Health of the Worker; How to Safeguard It.** By Lee K. Frankel, Ph.D. Price 30 cents net. **Home Care of the Sick.** By Clara D. Noyes, R.N. Price 30 cents net. **Your Mind and You; Mental Health.** By George K. Pratt, M.D. Price 30 cents. Volumes 14 to 20 of the National Health Series. Published by Funk & Wagnalls Company, 354-360 Fourth avenue, New York.

These are the last six volumes of the twenty volume National Health Series. This is said to be the most authoritative series of non-technical low priced books on health that has ever been published. The profession should keep them in mind whenever it may be desirable or feasible to recommend a book on health subjects to people under their care. The best talent available has been employed in the preparation of these books and they have been designed to meet the needs of the people and to appeal to their intelligence.

Medical School Notes

The old Bell Memorial Hospital has been taken over by Kansas City, Kansas, and has been remodeled for use as a contagious hospital. It is now known as the Eleanor Taylor Hospital and will be opened on December 15th. Private patients will be admitted and may be treated by their own

physicians but clinical patients will be cared for by a staff appointed by the medical school. This staff is as follows:

Physician in charge.....Dr. H. L. Dwyer
Epidemiologist.....Dr. L. B. Gloyne
Medicine.....Dr. L. L. Bresette
Surgery.....Dr. C. C. Nesselrode
Radiology.....Dr. L. G. Allen
Otorhinolaryngology.....Dr. L. B. Spake

Ground has been broken near the Bell Memorial Hospital for the construction of an assembly hall for the nurses. Under the present arrangements the nurses live in several houses around the hospital and have no place to get together. The new building, though a temporary one, has been so planned as to serve both as an auditorium and as a meeting place for social affairs. Part of the expense of the building is being met by the balance of the fund which was subscribed by the alumni and members of the faculty when the new hospital site was purchased.

Dr. H. R. Wahl, and Dr. T. G. Orr, read papers at the recent meeting of the Southern Medical Society in New Orleans.

Dr. R. L. Haden, read a paper at the American Dental Association meeting in Dallas, Texas.

Dr. Guy Finney, '12, of Topeka, and Dr. V. C. Chesky, of Halstead, were recent visitors at the Medical School.

Dr. Ruth Ewing, '22, has accepted the position of resident house officer at the Boston Children's Hospital.

Members of the faculty recently read papers before the Crawford, Douglas and Sedgwick County medical societies.

SOCIETIES

SEVENTH DISTRICT SOCIETY

The fall meeting of the Seventh District Medical society was held at Larned, Kan., the afternoon and evening of October 31, 1924. Dr. Hughes, superintendent of the State insane hospital, acted as host for the occasion and, assisted by Mrs. Hughes, furnished a most excellent banquet in the evening to about fifty-five guests.

The afternoon program was especially good, consisting of papers by Drs. Robison, of Great Bend; Marion Trueblood, of Sterling, and an excellently conducted mental

clinic by Dr. Perry, of Topeka. After the program the guests were conducted through the hospital buildings by Dr. Hughes and assistants, and favorable comments were heard on all sides regarding the modern manner in which Kansas is preparing to take care of the mentally ill.

After the banquet Dr. A. E. Hertzler gave a terse, interesting, talk on the thyroid, making his address necessarily brief on account of train connections. Post-prandial orators, songsters, and raconteurs then vied with each other in furnishing an hour's social program.

The long dining room tastefully decorated with Hallowe'en pumpkins, witches cauldrons, and other creepy things, added not a little to the fitness of the occasion. Space prevents giving the names of those present, suffice to say nearly every county in the big Seventh district was represented.

Great Bend was chosen as the spring meeting place. Dr. Ross of Sterling, was elected secretary and treasurer to fill the term made vacant by the removal of Dr. Boyd from the district.

Yours truly,
J. A. DILLON, Councillor.

—R—

SHAWNEE COUNTY SOCIETY

The annual meeting of the Shawnee County Medical society was held at Pelletier's tea room, Monday evening, December 1. Officers elected were:

President, Robert B. Stewart, M.D.
Vice president, C. E. Joss, M.D.
Treasurer, Milton B. Miller, M.D.
Secretary, Earle G. Brown, M.D.
Board of Censors, J. L. Lattimore, M.D.

Following the meeting a dinner was served for the physicians and their wives, with a total attendance of 119.

The Shawnee County Medical society has held four special meetings and nine regular meetings during the year, with an average attendance of 44.

EARL G. BROWNE, M.D., Secy.

—R—

NORTHEAST KANSAS MEDICAL SOCIETY

The fall meeting of the Northeast Kansas Medical society was held November 13 in the Chamber of Commerce at Kansas City. The following program was prepared for the meeting:

Result of Arthroplasty on Temporo Maxillary Articulation.—Drs. Spake and Williams.

Fracture and Dislocation of Ankle. Frac-

ture and Dislocation of Cervical Vertebrae.—Dr. W. J. Gates.

Varicose Ulcers and Veins.—Dr. L. F. Barney.

Child with Congenital Cataract of Both Eyes.—Dr. C. M. Brown.

Epithelioma of Eye Ball.—Dr. J. W. May.

Two Cases of Enlarged Spleen of the Same Family.—Dr. C. E. Coburn.

Compound Comminuted Fracture of the Femur (two cases).—Dr. T. S. Bourke.

Diabetes Mellitus.—Dr. F. M. Krall.

Tuberculous Peritonitis. Demonstration (a) Shick Reaction for Diphtheria Immunity. (b) Dick Reaction for Scarlet Fever Immunity.—Dr. H. L. Dwyer.

End Results in Resection of the Sigmoid.—Dr. J. W. Faust.

Arterial Hypertension, (a) Essential. (b) Chronic Nephritis.—Dr. R. H. Major.

Thrombo Angitis Obliterans.—Dr. T. G. Orr.

Congenital Sarcoma of Kidney.—Dr. F. C. Helwig.

Paper, "Extrauterine Pregnancy."—Dr. C. E. Joss.

Paper, "The Interrelationship Between Thyroid and Pelvic Disease.—Dr. W. A. Baker.

Dinner at 6:00 p. m., given by the Wyandotte County Medical society for the visiting physicians.

EARLE G. BROWN, Secretary.

—R—

The Gorgas Memorial

During the past year, thruout the United States, the work of organizing the Gorgas Memorial State Governing committees has been progressing. In some states the response has been most enthusiastic, while in others considerable effort has been necessary to bring home to the doctors, the importance of this movement to them, individually and collectively. Inasmuch as the Gorgas Memorial is primarily a medical movement and as such must have the united support of the profession if it is to make the proper impression on the general public, we take this occasion to outline briefly the Gorgas plan and to request the co-operation of our colleagues in bringing to a successful issue, this national health program.

We are planning to establish a memorial for our former chief, Major General William Crawford Gorgas, not of marble or bronze, but a permanent living organization in the form of a great health foundation typical of his work in research and cura-

tive medicine, that will unite laymen and doctors in an intelligent effort to obtain better personal health—a health guild that will be supported and directed by the representatives of curative medicine.

The Gorgas memorial consists of two phases:

1. An institute in Panama for research in tropical diseases.
2. A health educational program in the United States and other countries that wish to co-operate and participate in the movement.

We are living in an age when people are knocking at all doors of knowledge and demanding that they be admitted. In the field of medicine who are so well fitted to meet this demand as those actually engaged in the practice of medicine? The doctors have a far more interesting and important message to deliver than any other group.

In the United States today there is scarcely a community that has not its quota of irregular "medical practitioners," so called. In many states there are strong organizations of the representatives of the various cults, whose theories are imposed upon an uninformed public. Public ignorance is encouraged by professional reticence and the result is the astounding growth of unscientific methods. If the profession is to maintain the high standing to which centuries of labor in behalf of suffering mankind entitles it, it is essential that a definite organized effort be made to familiarize the public with such facts as will impress upon it the importance of medicine's contributions to human welfare. A constant fund of proper health information through the newspapers, magazines, lectures, moving pictures and the radio, furnished by medical men and women of known reputation and standing, will direct the public to the proper source for medical advice and gradually eliminate the irregular practices constantly increasing.

One of the objects of the Gorgas memorial is to furnish a channel through which this kind of information may be disseminated. It cannot be done by individual physicians. It must be conducted by a dignified, ethical organization, controlled by the medical profession. The name of Gorgas is synonymous with "better health." No more appropriate name could be adopted for a movement that has for its object, *the development of co-operation*

between the public and scientific medicine for the purpose of improving health conditions by implanting the idea in the mind of every individual that scientific medicine is the real authority in all health matters and as such should be recognized as the source of health instruction.

Before we ask the public for financial and moral support, it is essential that the doctors of the country unite in support of this program. As a means to this end. Governing committees are now in process of organization, on the basis of 100 members to every 1,000,000 population in each state. Seventy-five per cent of the personnel of each committee will consist of medical men and 25 per cent of influential laymen and women. The permanent activities of the organization will be supervised by these committees in their respective states, in co-operation with the national executive committees.

An organization cannot operate without funds. We are endeavoring to raise an endowment of \$5,000,000, the interest only of which will be utilized to carry on the work. The principal will be invested in trust securities and remain intact. None of the money thus obtained will be spent for buildings or equipment. The Republic of Panama has donated the site and guaranteed the initial buildings and equipment for the tropical research laboratories, in recognition of Gorgas' great work in Panama. Those invited to serve as founder members of the state governing committees are requested, as they accept membership on the committee to subscribe \$100 to the endowment fund, payable within two years. Every individual on the state committee is a contributing member. When the medical nucleus of the organization is complete, a general appeal for funds will be made to the public.

The American Medical Association at its recent meeting in Chicago, passed the following resolution:

"Resolved, That the House of Delegates of the American Medical Association, convinced of the great promise which the Gorgas memorial contains of benefit to humanity through improved knowledge of preventive medicine and tropical disease, and of its peculiar adequacy, as a tribute to our great leader and sanitarian, recommend to the organized profession of the country, through its constituent state and

county societies, the enthusiastic support of the project."

J. A. Witherspoon, Tennessee.
Joseph Rilus Eastman, Indiana.
Thomas Cullen, Maryland.
W. H. Mayer, Pennsylvania.
F. B. Lund, Massachusetts.

The memorial has also been endorsed by numerous other medical and civic organizations.

Every doctor is requested to take a personal interest in the Gorgas program and to see that his community is adequately represented on the state governing committee. Each county society should appoint officially at least one of its members to serve on the state committee. This is one foundation that is controlled by the practitioners of curative medicine and as such should be supported by every practicing physician. Let us pull together, "the doctor for the doctor."

Frank Billings	Stuart McGuire
Gilbert Fitz-Patrick	Ernst A. Sommer
Seale Harris	Ray Lyman Wilbur
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—R—

A New Diet for Peptic Ulcer

Warren Coleman, New York (*Journal A.M.A.*, Sept. 20, 1924), reviews the various diets that have been proposed for the treatment of gastric ulcer, points out their faults

and proposes a new diet. This diet consists only of olive oil or butter fat, white of egg, glucose, salt and water. The white of egg and fats and a moderate quantity of water are given by mouth; the glucose and salt are given in solution by rectum. In order to secure complete rest for the stomach, only water is permitted by mouth for several days. In the earlier part of the treatment, both in the preliminary period and after feeding by mouth is begun, the patient does not receive the amount of food he needs; but when the totals of the various foods have been reached, the nutritive requirements of the body are completely covered. Thus: Five ounces (150 c.c.) of olive oil (or about 6 ounces [180 gm.] of butter) furnish approximately 1,400 calories. The whites of eight eggs contain 33 gm. of protein (5 gm. of nitrogen), and furnish 135 calories. Four ounces (120 gm.) of glucose furnish 480 calories. Eight grams of salt will prevent loss of chlorin from the body. On such a plan, the stomach may be given absolute rest for from three to five days. The foods given by mouth inhibit the gastric secretion and reduce gastric motility to a minimum; the surface of the ulcer is protected by a coating of fat for a considerable portion of each day. The diet has been in continuous use for twelve years, and the results have proved satisfactory. Gastric distress quickly subsides after treatment is begun; it may disappear on the first day, and is nearly always gone by the third day. All patients lose weight in the earlier part of the treatment because the amount of food is insufficient to cover their nutritive requirements. The extent of the loss depends on the length of time occupied in reaching the desired totals. Consequently, after feeding by mouth is begun, the food should be increased as rapidly as the stomach can take care of it. Usually, the lost weight is recovered before the patient is ready to leave the bed. If the loss of weight in any patient appears dangerously rapid, the diet should at once be modified by the addition of suitable quantities of cream and whole eggs to prevent further loss. Loss of weight will be greater if thirst is not controlled.

—R—

The Significance of Lumbosacral Pain (Backache)

Backache, in the majority of instances, is a symptom that is curable and belongs to the domain of neurology and internal medicine. Because pain is present and persists,

it does not necessarily mean that the pathologic cause is in the subjacent nervous tissue. However, George Martyn, Los Angeles (*Journal A.M.A.*, Oct. 25, 1924), finds certain characteristic symptoms, following lesions of the nerve tissue of the different areas of help in diagnosis. He considers the cerebrospinal system in divisions, marked by definite anatomic boundaries: peripheral nerves, plexus areas, funiculus and radicle; 153 patients suffering from chronic backache, form the basis of this report. In every case, a complete history with clinical symptoms was recorded, and the following laboratory procedures were carried out: (a) Wassermann reaction with serum; (b) differential blood count; (c) complete urinary examination; (d) in many cases, complete examination of the feces, including a culture; (e) complete examination of the nose, throat and sinuses with, in some cases, stereopticon roentgenograms of the latter; (f) roentgenograms of all teeth, and in case of their complete extraction, roentgenograms of the superior and inferior maxillae; (g) culture of apical granuloma, or extracted teeth. Classification of the cause of pain in these 153 cases is as follows: trauma, two; gallbladder disease, thirteen; syphilis, eleven; focal infection, 127; tonsils, eight; teeth: periapical abscess, ninety-seven; partly erupted molars, seven; dead teeth, three. Given pronounced lumbosacral pain with a high lymphocyte count, the absence of evidence of undoubted apical abscess means little. Studies of the teeth as a causal agent of backache must go much farther than study of the roentgenograms. In the last group of patients, three fairly well marked types of backache may be described, depending on the character and distribution of the pain. Twenty-seven patients had pain in the lower lumbar region and over the back of the ilium and the sacrum, shooting down the back of the thigh and the calf to the heel. The spine was fixed in a painless position. The pain was increased at night, and was paroxysmal in character. Ninety patients had fixed pain elicited by deep pressure over the lumbar plexus. It was not conducted, was boring in character, and was generally one-sided. This pain was in most cases intensely acute. In some, it was accompanied by a moderate rise in temperature and by chills. These patients were unable to bend, and pain was markedly increased on coughing. Two patients had true coccydynia. The pain was absolutely localized to the

coccyx. It was increased on sitting down or getting up. The most comfort was found by sitting on a soft pillow, but the least movement brought back localized pain. Both were relieved by tooth extraction. All these cases were chronic. Eradication of the foci of infection practically always brought complete relief of pain.

—R—

NOTICE TO MEMBERS

To complete a set of permanent files of the Journal for the Society the following numbers are required:

1903—April.

1904—September.

1905—January, April, December.

1906—April, August, November.

Anyone having in his possession one or more of these missing numbers will be doing a great favor by sending them to the Journal. When these files are complete the Society will have a complete record of its transactions from its first meeting in 1859.

—R—

Elimination of Politics From Public Health Work

W. S. Rankin, New York (*Journal A.M.A.*, Oct. 25, 1924), says that the appraisal of any piece of public health work will be a matter of personal and political opinion until acceptable standards are established. As long as political authorities have to deal with officers, they can retain or replace them with only slight political embarrassment; but, when they have to deal with records of work which possess two qualities, (1) verifiability and (2) comparability, their main responsibility shifts at once to the maintenance of records of work, and political and personal considerations are submerged in view of this greater responsibility. He proposes an exact numerical expression of group judgment of health officials as a substitute for individual opinion in measuring public health activities. Standards should not be based on provisions for work, appropriations or personnel; the form of health organization, whether civil service is used or not used; mortality rates, which may be used to compare health conditions but not to compare health work; and methods of work which should not be standardized; but on the essential results of health work. For example, under communicable diseases: (1) the number of cases reported as compared with the number of deaths from certain diseases; (2)

the average number of follow-up visits by nurses and inspectors for each case reported; (3) the office study given communicable disease work; (4) the use of the standard procedures of isolation and quarantine; (5) the percentage of communicable diseases hospitalized; (6) the percentage of the population vaccinated against smallpox; and (7) the percentage of children immunized against diphtheria. Similar criteria could be used for tuberculosis prevention and venereal disease control, school medical inspection, etc. Following the assignment of relative values to the more important problems, we could distribute the weight under each problem. The standards on which a rate is to be determined should be the figures already arrived at by the best departments whose health officers have decided to use group judgment in determining relative values, and in influencing program, budget and activities. Special regional problems, as, for example, malaria in the South, or plague on the Pacific coast could be assigned additional weights. To the individual health officer such a score card furnishes the strong support of health officers as a group in dealing with those special interests which insistently project themselves into the construction of health programs. To the profession of public health workers and to the public, numerical judgment of relative values would afford, after two or three years for judgment of program, a basis for a classification and publication in national journals of the professional standing of health departments.

—————R—————

A Book of Importance in the Prescribing of Diets

The dietetic importance of pure, plain, granulated gelatine has attracted so much attention, and the demand for more information has reached such a volume that the laboratories of the Charles B. Knox Gelatine Company have prepared a book of dietetically correct recipes with gelatine, for Diabetes, Nephritis, High Blood Pressure, Gastritis, Gastro Intestinal Disorders, Fevers, Constipation, Obesity and general mal-nourishment in infants and adults.

The recipes have been most carefully worked out under authoritative auspices, and with each recipe is given a quantitative analysis of carbohydrates, fat, protein and calorie value.

The Diabetic section of the book is a most valuable contribution to advanced dietetic

practice, with or without the insulin treatment. Another important chapter is the report of T. B. Downey, Ph.D., Fellow at Mellon Institute (Pittsburgh), on the value of pure, unflavored gelatine as a protective colloid in the modification of milk in infant feeding, which in no way changes prescribed formulas. Dr. Downey has determined, by standard feeding tests, that the addition of 1 per cent gelatine to a quart of milk, increases the yield of nourishment by about 23 per cent.

Furthermore, these feeding tests determined that the protective colloidal action of the gelatine was highly efficacious in aiding the complete digestion and resulting assimilation of other basic foods of the vegetable, fruit, meat and fish families.

A most important feature of this book is the simple and complete directions for the preparation of these dishes, without which a prescribed diet so often fails despite the care and caution of the physician.

The book will be mailed, upon request—postpaid and free of charge—by the Charles B. Knox Gelatine Company, Johnstown, New York, to any physician or dietitian who requests it.

—————R—————

The Suprarenal Principle

When the active principle of suprarenal glands was isolated for the first time—by Takamine in 1900—it was named Adrenalin, from the fact that the medullary portion of the suprarenal gland is properly known as the adrenal body. The history of suprarenal therapy has been written for the most part from experience with Adrenalin, and the majority of writers on the subject have given the product its proper name as designated by its discoverer well-nigh a quarter of a century ago.

There is now an Adrenalin family—in addition to the liquid in vials and ampoules: an ointment, a suppository, and an inhalant, all bearing the name and all depending upon the presence of Adrenalin in the formula for their efficacy.

The manufacturers, Parke, Davis & Co., announce that they have a booklet containing practical information on all the Adrenalin products, which they will be glad to send to any inquiring physician.

—————R—————

The Physiology of Globus Hystericus

In the cases cited by Edmund Jacobson, Chicago (*Journal A. M. A.*, Sept. 20. 1924), no difficulty in swallowing was observed or complained of. Moderate spasm of various



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portions of the esophagus was present with the experience of "globus." A fairly thick barium paste might in part remain thickly held in the esophagus for more than from ten to twenty-five minutes after swallowing. At another time, when no symptoms were complained of, the paste passed through without undue delay. Spasm of other portion of the gastro-intestinal tract might accompany that of the esophagus. Jacobson says that without denying a paresthetic element, it may be assumed that globus is essentially a spastic phenomenon. The walls of the esophagus, meeting in spasm, feel somewhat like a bolus of food and suggest to the patient the experience of a foreign body.

—R—

Acute Yellow Atrophy of the Liver Following Neo-Arsphenamin Injections


W. H. Gordon, Detroit, and M. S. Feldman, Ann Arbor, Mich. (*Journal A.M.A.*, Oct. 25, 1924), are now beginning to make studies of liver function tests before instituting any form of drastic treatment. They had used large doses of mercury and neo-arsphenamin simultaneously, and felt that this may have been responsible for the

death of a patient. In looking over records of a series of cases in which similarly drastic treatment was instituted and in which they had had no similar experiences of acute yellow atrophy, it again brought to mind the question of preexisting pathologic changes in the liver made worse by combined treatment of mercury and arsenic in large doses.

—R—

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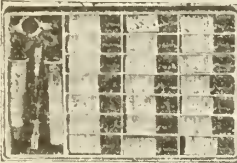
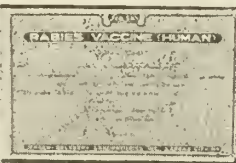


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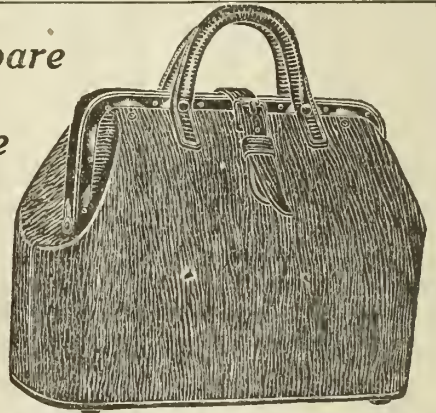
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